

NCOAE Equipment List

North Carolina – 14-day Teen Leadership Expedition



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 or Walmart.

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 borrow 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 use! Of course you don't have to borrow equipment from us, but our gear is tailor-made to fit our expeditions
- 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!
- **Do not bring electronics (i.e. cell phones, tablets, smart watches, MP3 players, etc.)** - If flying unaccompanied to/from the trip location, please bring your cell phone with you while traveling. At check-in, all cell phones and other electronics will be collected by NCOAE staff and secured in a lock box until your group returns from the field.
- Items listed below with an asterisk (*) may be available, in limited quantities, for student use 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	NCOAE provides	1	Internal frame backpack, with a volume of 75 to 85 liters is ideal (4,576-5,200 cubic inches).	<input type="checkbox"/>
Waterproof Stuff Sacks / Gallon Ziplocs	Must Bring	1-4	Used to organize items in your pack. Lightweight drysacks are convenient (Example: eVent Sil DrySack).	<input type="checkbox"/>
Day Pack	Must Bring	1	Small backpack for use on day hikes or trips into town	<input type="checkbox"/>
Zip Duffle	Must Bring	1	Used to organize and store items while at camp. (Example: Outdoor Products 12x24 Deluxe Duffle).	<input type="checkbox"/>
Dry Bag	Optional – NCOAE provides	1	Used to organize and store personal items while on the river. (Example: Sealline Dry Bag, 20-40 liters).	<input type="checkbox"/>
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.	<input type="checkbox"/>
Camp Shoes	Must Bring	1 pair	Closed-toed shoes are a must to protect your feet and are more comfortable for wearing in camp.	<input type="checkbox"/>
River Shoes / Sandals	Must Bring	1 pair	Recommend closed-toed for protection from rocks, sharp objects, or in case you fall in the water. Must have heel strap. (Example: Keens, Chacos). NO CROCS. Can double as your camp shoes.	<input type="checkbox"/>
Hiking Socks	Must Bring	5-7 pairs	Must be 75%–100% wool, merino wool, synthetic-wool, or synthetic. No cotton or wool-cotton blends.	<input type="checkbox"/>
Upper Body Clothing				
You need three to four insulating layers that fit comfortably over each other, and under your rain gear. If you get cold easily, we suggest that you bring four insulating layers. Example combination: Long Underwear + T-shirt + Fleece Jacket + Rain Jacket.				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Base Layer - Long Underwear Top	Must Bring	1-2	Light or mid-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Icebreaker wool)	<input type="checkbox"/>
Fleece or Light Jacket / Hoodie	Must Bring	1	Light to mid-weight fleece or synthetic jacket that fits over your base layers. No cotton hoodies.	<input type="checkbox"/>
Long-Sleeved Shirt	Must Bring	1-2	Nylon or other synthetic long sleeved shirt, roomy enough to fit over base layers. Protection from wind, brush, sun, or cold.	<input type="checkbox"/>
T-Shirt	Must Bring	3 - 4	Lightweight synthetic or wool shirts recommended.	<input type="checkbox"/>

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Insulated Jacket / Puffy	Must Bring	1	A light to mid-weight, warm, synthetic-fill jacket or “puffy” that fits over your base layers. (Example: Patagonia Nano Puff Hoody)	<input type="checkbox"/>
Rain Jacket*	Must Bring	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 or Frog Toggs are NOT ACCEPTABLE.	<input type="checkbox"/>

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: Long Underwear + Hiking Pants + Rain Pants

EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Base Layer - Long Underwear Bottoms	Must Bring	1-2 pairs	Light or mid-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Icebreaker wool).	<input type="checkbox"/>
Rain Pants*	Must Bring	1 pair	Must be WATERPROOF. These need to fit comfortably over your hiking pants.	<input type="checkbox"/>
Hiking Pants	Must Bring	1-2 pair	Nylon or other synthetic hiking pants are recommended for protection from bugs and dense vegetation.	<input type="checkbox"/>
Nylon Shorts	Must Bring	1-2 pair	Nice for warm days. Pockets are nice to have.	<input type="checkbox"/>

Miscellaneous Clothing

EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Sun Hat or Baseball Cap	Must Bring	1	Should be wide-brimmed to protect from sun.	<input type="checkbox"/>
Winter Hat*	Must Bring	1	Lightweight fleece or wool hat that will fully cover your ears.	<input type="checkbox"/>
Bathing Suit	Must Bring	1	Necessary for paddling parts of the adventure.	<input type="checkbox"/>
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	<input type="checkbox"/>
Bandana	Must Bring	1	For multiple uses.	<input type="checkbox"/>
Lightweight Gloves or Mittens	Must Bring	1 pair	Lightweight wool or synthetic gloves for cold mornings or evenings around camp or worn alone for sun protection.	<input type="checkbox"/>
Underwear/Bras	Must Bring	7-13 pairs of underwear; 2 Bras	Undergarments made from merino wool or synthetic to wick moisture are highly recommended. Cotton briefs for women are acceptable.	<input type="checkbox"/>
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.	<input type="checkbox"/>

Sleeping Gear

EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Mummy Style Sleeping Bag w/Stuff Sack	Must Bring or NCOAE provides	1	Temperature rating of 20 degrees F or colder. Synthetic, not down recommended. Compression stuff sack recommended.	<input type="checkbox"/>
Sleeping Bag Liner	Optional	1	To keep you warmer on cold nights. Recommended if you get cold easily at night. Wool or synthetic recommended.	<input type="checkbox"/>
Sleeping Pad	Must Bring or NCOAE provides	1	Closed-cell foam or self-inflating pads. (Example: Therm-a-rest Ridgerest or Z Lite).	<input type="checkbox"/>

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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.	<input type="checkbox"/>
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 only.	<input type="checkbox"/>
Watch w/ Alarm	Must Bring	1	Must be waterproof (Example: Timex Expedition)	<input type="checkbox"/>
Headlamp	Must Bring	1	Durable and lightweight.	<input type="checkbox"/>
Extra batteries	Must Bring	1-2 sets	Bring 1-2 spare sets for headlamp	<input type="checkbox"/>
Water bottle, 32 oz	Must Bring	2	Heavy, durable plastic. Wide-mouth and must be at least 32 oz.	<input type="checkbox"/>
Insulated mug	Must Bring	1	Durable plastic for hot drinks.	<input type="checkbox"/>
Plastic Bowl	Must Bring	1	Tupperware or Nalgene style, 16-30 oz capacity, with lid.	<input type="checkbox"/>
Spoon or Spork	Must Bring	1	Plastic or metal utensils	<input type="checkbox"/>
Camp Towel	Must Bring	1	Must be compressible, lightweight, quick-drying, made of a microfiber. For use after sweating or after getting in water.	<input type="checkbox"/>
Insect Repellent & Sunscreen	Must Bring	1	Small, travel sized bottles – NO AEROSOLS. Sunscreen must be SPF 30 or greater.	<input type="checkbox"/>
Sunglasses	Must Bring	1	Durable with UV protection.	<input type="checkbox"/>
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.	<input type="checkbox"/>
Eyeglasses Strap	Optional	1	Good brands are Chums and Croakies.	<input type="checkbox"/>
Trekking Poles	Optional	1-2		<input type="checkbox"/>
Optional Items				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Camera	Optional	1	Small, waterproof camera. You are not permitted to bring cell phones or tablets into the backcountry, even for camera use.	<input type="checkbox"/>
Binoculars	Optional	1	Small, travel sized.	<input type="checkbox"/>
Book	Optional	1	A small, lightweight book for reading.	<input type="checkbox"/>
Small Game / Cards	Optional	1	For down time.	<input type="checkbox"/>
Camp Pillow	Optional	1	Small, synthetic and compressible camp pillow.	<input type="checkbox"/>
Sit pad or Camp chair	Optional	1	Lightweight, portable seat for increased insulation when sitting on ground.	<input type="checkbox"/>
NCOAE Will Supply				
Students share both the use of and the responsibility for the group gear that NCOAE dispenses.				
Tents		Group Tarp		Toilet Paper & Trowel
Stoves, Fuel Bottles & Fuel		Maps & Reference Books/Materials		Compass & Whistle

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Cooking Gear	Course Food & Spice Kit	Water Treatment
First Aid Kit	Repair Kit	Group Sunscreen & Bug Spray
Bear Canisters or Bags	Soap, Hand Sanitizer & Hygiene Wipes	Solo Tarps
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 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:

Soloman: X Ultra 4 Mid, X Ultra 360
 Garmont: Groove Mid
 La Sportiva: TX Hike
 Scarpa: Moraine GTX, Rush GTX
 Vasque: Talus, Breeze
 Oboz: Sawtooth, Katabatic
 Merrell: Moab Mid
 Keen: Targee Mid