

NCOAE Equipment List

Alaska – 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, 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 (4,600-5,200 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 Duffel	Must Bring	1	Used to organize and store items while at camp. (Example: Outdoor Products 12x24 Deluxe Duffel).	<input type="checkbox"/>
Footwear				
EQUIPMENT	REQUIREMENT	QUANTITY	COMMENTS	CHECK LIST
Sturdy Hiking Boots*	Must Bring	1 pair	Must be WATERPROOF. Recommend sturdy, leather boots. Please read the Boot Selection Guide at the end of this list.	<input type="checkbox"/>
Hiking Socks	Must Bring	5-6 pairs	Must be 75%–100% wool, merino wool, synthetic-wool, or synthetic. No cotton or wool-cotton blends.	<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"/>
Water Shoes	Optional	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 use as camp shoes.	<input type="checkbox"/>
Gaiters	Optional	1 pair	Full gaiters provide good leg protection while bushwhacking. Low gaiters are also acceptable.	<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	2	Light or expedition-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Icebreaker wool)	<input type="checkbox"/>
Fleece or Light Jacket / Hoodie	Must Bring	1	Mid-weight fleece or synthetic jacket that fits over your base layers. No cotton hoodies. (Example: Mountain Hardware Microchill)	<input type="checkbox"/>
Long-Sleeved Shirt / Expedition Pullover	Must Bring	1	Must be synthetic. (Examples: Mountain Hardware Expedition-Weight zip-tee)	<input type="checkbox"/>
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)	<input type="checkbox"/>
T-Shirt	Must Bring	3-4	Lightweight synthetic or wool shirts recommended.	<input type="checkbox"/>
Insulated Jacket / Puffy	Must Bring	1	A warm, lightweight, synthetic-fill “puffy” jacket that fits over your base layers & under your ski jacket. (Example: Patagonia Nano Puff Hoody)	<input type="checkbox"/>
Wind Shirt	Must Bring	1	Nylon long-sleeved wind shell, must fit over base layers. Protection from bugs, wind, brush or to use as “cooking shirt.”	<input type="checkbox"/>

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Rain Jacket*	NCOAE provides	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	2 pair	Mid- or expedition-weight synthetic or performance wool is best. (Examples: Patagonia Capilene, Icebreaker wool).	<input type="checkbox"/>
Insulated or Fleece Pants	Must Bring	1 pair	Fleece or synthetic-filled pants are needed when weather is especially cold. (Examples: Sherpa Jaaro Microfleece Pants, Mountain Hardwear Compressor Pants)	<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"/>
Wind Pants	Must Bring	1 pair	Nylon wind shell, roomy enough to fit comfortably over your base layers. Excellent protection in dense bushes and from bugs, or for use as “cooking pants.”	<input type="checkbox"/>
Nylon Shorts	Optional	1 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	2	Fleece or wool hat that will fully cover your ears.	<input type="checkbox"/>
Bathing Suit	Must Bring	1		<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"/>
Glove Liners	Must Bring	1	Lightweight polypropylene gloves may be layered with heavier gloves for warmth or worn alone for sun protection.	<input type="checkbox"/>
Waterproof Gloves or Mittens	Must Bring	2 pair	Must be Waterproof. Wool or synthetic gloves or mittens for cold mornings or evenings around camp.	<input type="checkbox"/>
Glove or Mitten Shells	Optional	1 pair	Waterproof gloves or shells to warm hands and keep them dry.	<input type="checkbox"/>
Underwear/Bras	Must Bring	7-13 pair 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 pair	Comfortable, casual set of clothes for in town & for your flight home at the end of your course.	<input type="checkbox"/>

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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. 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"/>
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.	<input type="checkbox"/>
Toiletries (2-3 oz travel size)	Must Bring	1 Set	Toothbrush, Toothpaste, Lip Balm w/SPF, Feminine Hygiene products. Shampoo, Conditioner, Soap, Washcloth/Loofah, & Facewash for in-town days.	<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 spare set for headlamp	<input type="checkbox"/>
Water bottle, 32oz	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"/>
Mosquito Head Net	Optional – NCOAE provides	1	Mosquitos & blackflies can swarm heavily in summer months.	<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, 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).	<input type="checkbox"/>
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.	<input type="checkbox"/>
Eyeglasses Strap	Optional	1	Good brands are Chums and Croakies.	<input type="checkbox"/>
Trekking Poles	Must Bring	1 set		<input type="checkbox"/>

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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"/>
Book	Optional	1	A small, lightweight book for reading.	<input type="checkbox"/>
Small Card Game or 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	Portable seat for increased insulation when sitting on ground. Crazy Creek, sleeping pad adaptor, or make from cut foam.	<input type="checkbox"/>
NCOAE Will Supply				
Students share both the use of and the responsibility for the group gear that NCOAE dispenses.				
Tents	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	Satellite Communication Device		Group Sunscreen & Bug Spray	
Bear Canisters or Bags	Soap, Hand Sanitizer & Hygiene Wipes		Repair Kit	

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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 will travel mostly off trail, you may be walking through cold streams, and your feet will get wet. You could be in rain or snow for days. You will cross creeks. **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.

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.

Mid-weight hiking boots:

Asolo: TPS Series GTX, Power Matic Series GTX, Greenwood Series GTX, Drifter Series GTX

Lowa: Renegade GTX, Zephyr GTX, Taurus GTX, Innovo GTX

Garmont: Chrono GTX, Vetta GTX

La Sportiva: TX Series Mid GTX,

Scarpa: Mojito Hike GTX, Terra GTX

Vasque: St. Elias Waterproof, Breeze Waterproof, Talus Waterproof

Oboz: Sawtooth Mid Waterproof, Bridger Mid Waterproof