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ICE CLIMBING

LEE VINING, CA, ROCKY MOUNTAIN NATIONAL PARK, CO, OR OURAY, CO **EQUIPMENT CHECKLIST**

The primary goal of any alpine climber should be to carry as little as necessary. What is left out of a backpack is often just as important as what is placed inside. Conditions in the mountains vary dramatically from season-to-season. This can make the process of selecting equipment for an alpine climb difficult. On the one hand, a climber wants to be light. But on the other hand, a climber wants to have everything they need if there is a storm or other emergency.

This list was designed for the "worst case scenario," a trip with significant inclement weather. In serious conditions it's not uncommon for a climber to need every piece of clothing and equipment on this list. However, if a program does not encounter significant weather, there may be items here that are not used. As you prepare for your trip, it's important to plan for the worst and hope for the best.

On the first day of your program, an AAI guide will work with you to refine your mountain kit to ensure that you bring exactly what's needed given the forecast. It is acceptable to bring too much clothing or equipment to your initial meeting. And it is acceptable to bring things that you have questions about. Extra equipment can always be left behind in the cars.

ROCKY MOUNTAIN NATIONAL PARK, CO AND OURAY, CO: Temperatures and weather conditions in Colorado in the winter typically range from the teens to below zero. Along with cold temperatures, you might experience snow storms, wind, or even freezing rain/hail.

THE SIERRAS, CA: Temperatures and weather conditions in the Sierras in the winter are similar to Colorado winter conditions. The temperatures are typically in the teens but can easily drop to -10°F to -20°F and be accompanied by high winds and blowing snow.

Please be sure to check the forecast several days prior to your course to ensure that you are properly prepared.

NOAA Weather Forecast for Estes Park, CO

NOAA Weather Forecast for Ouray, CO

NOAA Weather Forecast for Bishop/Lone Pine Area, CA

PROVIDED EQUIPMENT: Climbing rope, anchors, solid waste bags

RENTALS: Equipment that is available for rent through the AAI is designated with a "Rent" check box. Please fill out the Sierra or Colorado Rental Request Form to reserve your rentals through AAI ahead of time. These rentals must be paid for before your trip starts.

Call or Email the Equipment Shop for Advice on Gear

Please feel free to contact us to help you get ready for your climbing trip. Your comfort and safety depend on being well equipped. Whether you get your gear from us or just get advice, we're here to help you prepare.

Call: (360) 671-1570 Email: shop@alpineinstitute.com
Equipment Shop Website: Shop.AlpineInstitute.com

Clothing	Packing Checklist
Beanie/Toque Wool or synthetic, must fit under your helmet.	☐ Own ☐ Buy
Sun Hat (Optional) Ideally fits under your climbing helmet. Baseball style hats with a button on top are generally not recommended. Visors or athletic hats from companies like Ciele or Skida are substantially more comfortable, vent better, and are easier to clean and dry out.	☐ Own ☐ Buy
Buff/Neck Gaiter Look for one that is UPF rated. Brighter colors work better for warmer conditions and darker colors for colder conditions.	☐ Own ☐ Buy
Glacier Glasses These are mandatory. Look for a pair that fits well and has side shields. The lenses should be dark enough to not let more than 12% of visible light through. Photochromic (variable tint) lenses are more expensive but are usable in a wider range of activities. ** NOTE: Those using contact lenses should also bring a pair of prescription glasses in the event that your contacts or solutions are lost or damaged by freezing. If you only use prescription glasses, we recommend "OTG" (over the glass) or "Frame-over" style sunglasses made by the company Cocoons. ** Examples: Julbo Spectron 4 Lense, Julbo Reactiv Performance 2-4 (Zebra Lense) or Julbo Reactiv High Mountain 2-4 (Cameleon Lense).	☐ Own ☐ Buy
Ski Goggles (Optional) For use in high winds and heavy snow. These should be lightly tinted but not so dark that they will reduce visibility in low light conditions. They should block 100% of UV light. If you wear prescription glasses, these must fit comfortably over your glasses.	☐ Own ☐ Buy
Headlamp Bring extra batteries, or if it has a rechargeable battery, make sure and bring a charger. 200-350 Lumens is an ideal range. ★ Example : Petzl Swift RL, Petzl Actik Core	☐ Own ☐ Buy

Liner Glove Thin, lightweight, wool or synthetic gloves. Size to fit snug but not too tight. Phone compatible fingertips and some sort of palm texture are nice features to have. Generally these are worn alone in temperatures above 25°F(-4°C) and when precipitation is not present. UPF rated liner gloves are ideal for sun protection. Bring 1-2 pairs. ★ Examples: Outdoor Research Vigor Sensor, The North Face Etip Grip	☐ Own ☐ Buy
Midweight Softshell Glove Bring one or two pairs. These gloves are used for belaying, tying knots, rope management, etc. Dexterity and durability are key. These gloves provide slightly more insulation than a liner glove and are generally used in temps of 15°F to 30°F(-9°C to -1°C) while actively using your hands. Look for a comfortable snug fit favoring dexterity and a durable leather or synthetic palm. Water-resistant material is recommended because they dry out faster than waterproof gloves. ★ Examples: Mountain Equipment Super Alpine, Rab Vapour-rise	☐ Own☐ Buy
Expedition / Hard Shell Glove Waterproof and insulated gloves. If the glove lacks insulation then size it to fit a liner glove inside. Mainly used in wet conditions, cold temperatures, or when not mobile. ★ Examples: Black Diamond Renegade, Outdoor Research Highcamp, Black Diamond Guide	☐ Own ☐ Buy
Sports Bra Wool or synthetic, comfort is key. Avoid bras with adjusters and clasps that could get compressed by your pack straps. Racerbacks are popular options for keeping straps in place. ★ Examples: Girlfriend Collective Topanga, Vuori Elevation.	☐ Own ☐ Buy
Base Layer This will be your main base layer and should be midweight synthetic or wool, no cotton. Long sleeves are preferred.	☐ Own ☐ Buy
★ Examples: Patagonia Capilene Cool Daily Hoody, Outdoor Research Echo, Rab Pulse	
★ Examples: Patagonia Capilene Cool Daily Hoody, Outdoor Research Echo, Rab Pulse Active Insulation Layer Lightweight "gridded fleece" or lightweight synthetic insulated jacket. Hood preferred. ★ Active insulation jacket weight at 40g/m2 and heavier Insulation jacket at 60g/m2 or 80g/m2 ★ Example: Patagonia R1, Patagonia Nano Air, Arc'teryx Proton LT	☐ Own ☐ Buy
Active Insulation Layer Lightweight "gridded fleece" or lightweight synthetic insulated jacket. Hood preferred. ★ Active insulation jacket weight at 40g/m2 and heavier Insulation jacket at 60g/m2 or 80g/m2	_ •

Down Parka These jackets come in many shapes, sizes and temperature ratings. If you tend to get cold easily, opt for a slightly warmer and more substantial parka. Otherwise, choose a down parka that is still fully baffled, includes a hood, and offers sufficient coverage over your waist. Must fit over all of your other layers. ★ Materials: Primaloft, down ★ Weight: 992 – 1560 grams	☐ Own ☐ Buy
Hard Shell Jacket (Waterproof Rain Jacket) Non-insulated jacket with a waterproof and breathable membrane. 3-layer construction is recommended. It must have a hood, ideally a helmet compatible hood. When sizing make sure it can fit over other layers. Ski jackets are discouraged because they are usually not waterproof and have heavy insulation. ★ Materials: Gore-Tex, eVent, Drilite, H2NO, Pertex Shield ★ Example: Patagonia Torrentshell, Arc'Teryx Alpha AR, Mountain Equipment Lhotse.	☐ Own ☐ Buy
Undergarments Wool or synthetic. Long, compression style undergarments can help reduce inner thigh chafing.	☐ Own ☐ Buy
Base Layer Pant (aka "Long Johns") Wool or synthetic. They should fit comfortably under your soft shell pants and should be at least midweight. One pair is sufficient. ★ Example: Patagonia Capilene midweight or thermal weight (Thermal is warmer)	☐ Own ☐ Buy
Soft Shell Pant Thin, weather-resistant, breathable, and stretchy. You will wear these a majority of the trip. * Materials: Exolite, Fortius, Schoeller, eVent, Gortex, H2No * Example: Patagonia Altvia, Mountain Equipment Ibex, Arc'teryx Gamma FL	☐ Own ☐ Buy
Hard Shell Pant (Waterproof Rain Pants) Non-insulated, waterproof and breathable membrane. Full side zips are recommended. Ideally has at least a 1/4 length zipper from the bottom of the pant cuff in order to get pants on and off while wearing mountain boots. When sizing make sure it is able to fit over a base layer and soft shell pants. Insulated ski pants are strongly discouraged due to lack of waterproofness and heavy insulation. * Materials: Gore-Tex, eVent, Drilite, H2NO, Pertex Shield. * Example: Patagonia Torrentshell, Arc'Teryx Beta Pant	☐ Own ☐ Buy
Socks Wool or synthetic socks that are at least mid calf height. Modern boots are designed to insulate your feet, so a thick sock is not recommended as these tend to lead to blisters and moisture retention. Using a lighter weight sock allows for a more accurate boot fit. Wearing a "silk-weight" liner sock beneath your hiking sock can reduce friction on the skin and mitigate blister development. 3 pairs is generally sufficient. * Example: Darn Tough Coolmax Lightweight	☐ Own ☐ Buy
Approach Shoes (Optional) Made with sticky climbing rubber, used by many for approaches to and from the rock climbing areas as well as for climbing some of the easier routes. ★ Example Approach: La Sportiva TX4, TX2, Scarpa Rapid	☐ Own ☐ Buy

Mountaineering Boots Must be stiff (full-shank or equivalent), crampon compatible, mountaineering boots. Double boots recommended for winter mountaineering courses	☐ Own ☐ Buy
Gaiters Knee or calf height. Keep snow and ice out of your boots and socks. Gaiters do help protect pants from crampon holes regardless of the season.	☐ Own ☐ Buy
Climbing	Packing Checklist
Technical Ice Tools Models by Black Diamond, Grivel, Petzl/Charlet, Omega, DMM, and other mainstream manufacturers are acceptable. Tools that are designed to be used with a leash should have a functioning leash system in place ★ Note: Off-set handle is recommended ★ Example: Petzl Nomic Ice Tool, Cassin X-Dream Ice Tool, Black Diamond Reactor Ice Tool	☐ Own☐ Buy
Harness Make sure the harness has a belay loop and gear loops. When sizing, it should fit over your clothes when you have multiple layers on. A more robust, padded harness is ideal for this program. ★ Example: Petzl Adjama, Arc'Teryx AR-395a	☐ Own ☐ Buy ☐ Rent*
Helmet Must be UIAA rated for climbing. Be aware that foam, break-away style helmets like the ones listed below are susceptible to damage if being loaded in a checked bag.	☐ Own ☐ Buy ☐ Rent*
Crampons Must be steel crampons with front points and compatible with your mountaineering boots. ★ Example : Petzl Vasak, Petzl Sarken	☐ Own ☐ Buy ☐ Rent*
Slings Bring one 48in.(120cm) and one 24in.(60cm) pre-sewn sling. Slings must be UIAA rated for climbing. ★ Example : Mammut Contact, Black Diamond Nylon Runner	Own Buy
Belay Device Bring an auto-blocking device that accepts two ropes.	☐ Own ☐ Buy
Carabiners Must be UIAA rated for climbing. Available for sale in our equipment shop. - Four large pear shaped munter-style locking carabiners. - Five non-locking wire gate carabiners. ★ Example : Petzl Attache, Camp Photon Wire	☐ Own ☐ Buy
Rappel Backup The Sterling hollow Block or Beal Jammy are recommended for their heat resistant properties. A 4ft length of 6mm nylon accessory cord will also suffice.	☐ Own ☐ Buy

☆ Example : Beal Jammy 35mm, Sterling Hollowblock 2 13.5	
Trekking / Ski Poles (Optional) Two poles are required. Poles help with balance while hiking with a heavy bag and increase security during stream crossings. They also decrease the pressure on your knees during steep descents. Poles should have snow baskets. ★ Example : Black Diamond Expedition 3	☐ Own ☐ Buy
Prusiks 6mm nylon cord in three lengths; 13 ft, 6 ft, 5 ft. Available through the AAI Equipment Shop. We recommend getting three different colors for easy identification. The Prusik kits we supply are specifically chosen for their supple nature and high strength, and it is encouraged that you use these. Many types of nylon cord can be stiff and more difficult to work with.	☐ Own ☐ Buy
Internal Frame Pack 65L-75L is a recommended size range. Mountaineering specific packs, instead of backpacking packs, are a good way to shave weight. Should also have the ability to carry weight well (45 lbs+). ★ Example : Black Diamond Mission 75, Mountain Hardware AMG 75, Arc'Teryx Bora 75	Own Buy Rent*
Camping Only needed if camping during program	Packing Checklist
Tent Double wall 4-season tent is recommended, This tent should be capable of withstanding winds up to 40 mph and continuous, multi-day rain or snow. If there are any questions please consult our Equipment Shop to see if your tent is okay to use. ★ Example 4-Season : Hilleberg Unna, Black Diamond Eldorado	☐ Own ☐ Buy ☐ Rent*
Sleeping Bag Down is the sleeping bag insulation of choice. Rated from 10°F (23°C) to 0°F (18°C) If you know you sleep cold take this into consideration when purchasing/selecting your bag. * Example: Mountain Equipment Fireflash (5), Western Mountaineering Alpinlite (20), Rab Mythic Ultra 180 (32)	☐ Own ☐ Buy
Compression Stuff Sack For your sleeping bag. If it is a down bag, a waterproof compression sack is recommended.	☐ Own ☐ Buy
Sleeping Pad Bring two; one inflatable and one closed cell foam. The foam pad helps insulate from the snow and serves as a backup to the inflatable pad.	☐ Own ☐ Buy
Stove and Fuel Liquid fuel or canister stove. ** NOTE: Many people choose to share stoves, fuel and tents to decrease weight. However, some people prefer to camp in their own tents and use their own stoves. This can be determined on the morning of the first day of your program. ** Example: Soto Windmaster, MSR Windburner	☐ Own ☐ Buy ☐ Rent*
Pots Bring one pot. Bring a bigger pot for melting snow; 1.5L to 2L	☐ Own ☐ Buy

Utensils Don't forget the official "most forgotten item ever;" the spoon, or spork. Long-handled spoons make stirring hot liquids safer, and metal ones tend to not break as easily in cold temperatures.	☐ Own ☐ Buy
Bowl Bring a plastic bowl or mug, preferably with insulation.	☐ Own ☐ Buy
Lighters Bring two.	☐ Own ☐ Buy
Hydration 3L capacity is recommended, though some people need more. A common approach is to bring a 2-3 liter bladder and a 1 liter hard sided bottle. The bottle is an important backup to the bladder if it gets punctured. A hard-sided bottle may also double as a mug for hot water, though not every bottle is designed to hold boiling water. For Camelbak style hydration bladders, bring a drinking tube insulator, as the tube can freeze up. Drinking tubes must also have a lock on the bite valve. If you choose to use this system, be aware that they require constant vigilance in order to avoid freezing. Be prepared to have to pull your bladder out of your pack to drink, as hoses freezing is a persistent issue on programs. * Example: Nalgene 32 oz bottle, Hydrapak Seeker 2-3L, MSR Dromedary 4-8L	☐ Own ☐ Buy
Water Bottle Parkas These are insulating jackets for your water bottles, one for each bottle. Must cover the entire bottle, including the lid. ★ Examples: 40 Below	☐ Own ☐ Buy
Water Purification Water purification of some form is required. The popular tabs that our guides use, Aquatabs, are a great option. Pills that take an hour or less to purify are recommended. Steripens are an acceptable alternative to purification tablets. It is strongly encouraged to use the brand Aquatabs, as they work the fastest and have the least amount of flavor once administered. ★ NOTE: Pumps can be damaged by silt in the glacial water and can easily freeze at night and crack. However, many of our guides are finding success using some of the integrated pump/bladders like the BeFree and Quickdraw. ★ Example : Aquatabs, SteriPen, Katadyn BeFree, Platypus Quickdraw	☐ Own ☐ Buy
Food You are responsible for your own food for the duration of the course. Please consult our meal planning page. You should arrive on the first morning of your course with enough food for your program length.	☐ Own ☐ Buy
Other Essentials	Packing Checklist
Toothbrush and Toothpaste Travel size recommended.	☐ Own ☐ Buy

Hand Sanitizer and/or Wet Wipes Required. Used after going to the bathroom and before eating. Wet wipes can be used for the "mountain shower."	Own Buy
Alarm Clock You will be responsible for waking up at certain times throughout the program, and while your guide can sometimes be your alarm, there are often situations where tents are far apart. Be sure if you use your phone as an alarm that you have enough backup battery to accommodate for this. If you plan to use a watch, be sure your alarm is loud enough to work for you.	☐ Own ☐ Buy
Toilet Paper The provided solid waste bags have a small amount of toilet paper with them, but most people do not find this to be adequate. Estimate how much you'll need for a program of this length and place that in a plastic zip lock bag. An extra zip lock bag can be helpful for pack-out of used paper. If you plan to use wet wipes, be wary of scented or exfoliating types as these can be an irritant for some people.	☐ Own ☐ Buy
Pee Cloth (optional) A reusable, antimicrobial pee cloth. Used in place of toilet paper or wet wipes for cleanup. ★ Example : Kula Cloth	
Urination Devices (optional) Pee funnels such as the GoGirl or Freshette. Rigid pee funnels hold their shape better. Used in conjunction with a pee bottle, or while on a rope team. These can help mitigate the need to squat. ★ Example : Freshette	☐ Own ☐ Buy
Menstrual Cup (optional) There are many things to consider about backcountry menstruation, click on the link below for more information. Click here for more info ★ Example : Diva cup, Saalt, Lunette	☐ Own ☐ Buy
Sunscreen At least SPF 30+, zinc based is preferred. Small travel size tubes are recommended so you can put them in a close by pocket for easy access. ★ Example : ZBlok 45, 2oz containers are a nice size.	Own Buy
Lip Balm Make sure it is SPF rated. ★ Example : Blistex Gold Five Star Protection SPF 30	☐ Own ☐ Buy
Personal First Aid Kit Band aids Blister treatment Prescription drugs Ibuprofen etc. If you wear contacts make sure and have spares if you can't see without them.	☐ Own ☐ Buy
Repair Kit ☐ Inflatable sleeping pad patch kit ☐ Duct tape (Can be wrapped around trekking poles or water bottle. Gorilla Tape tends to be the best brand for the mountains.)	☐ Own ☐ Buy

Other Optional Items The items below are not required, although many are nice "luxury" items that can make your expedition more enjoyable. Remember that a few ounces here and there add up to extra pounds on your back and knees during your expedition.	Packing Checklist
Gaia Navigation App Optional Smartphone App.	☐ Own ☐ Buy
Map and Compass Map should be of the program area. Compass must have declination adjustment.	☐ Own ☐ Buy
Assisted Braking Device (Optional) If you have a Petzl GriGri or similar assisted braking device, bring it with you for front-country climbing.	☐ Own ☐ Buy
Altimeter Watch If you have one then bring it, it is a great tool to have in the backcountry, especially for navigation.	☐ Own ☐ Buy
Pee Bottle Used at night or when the weather is poor so you don't have to get out of your tent. 32oz or larger is strongly recommended. Many guides use a bladder instead of a bottle for increased capacity.	☐ Own ☐ Buy
Entertainment Books, games, cards, music player, kindle, ect. For evenings or rainy days in the tent.	☐ Own ☐ Buy
Portable Charging Device Phone charger, battery pack, or solar panel. You are responsible for your alarm clock each morning, if you are going to use your phone be sure you have enough power to accommodate for this. **NOTE: Solar panels should only be used to charge battery packs. Battery packs should be used to charge devices. Inappropriate use of a solar panel could lead to the depletion of a device's power.	☐ Own ☐ Buy
Ear Plugs For defense against snoring and high winds.	☐ Own ☐ Buy
Camera Phone cameras or small point-and-shoot cameras are preferred. SLR cameras are not recommended due to their size and bulk.	☐ Own ☐ Buy
Comfortable Clothing and Footwear Breathable footwear like flip-flops as well as some comfortable cotton clothing can be nice to change into after you get back to the van.	☐ Own ☐ Buy
Car Charger Consider bringing an extra battery pack as well, having a lot of people using car charger cables is difficult.	☐ Own ☐ Buy