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ALPINE ROCK CLIMBING

THE SIERRAS, CA OR ROCKY MOUNTAIN NATIONAL PARK, 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: Temperatures and weather conditions in RMNP are often conducive to great climbing conditions. Thunderstorms, however, are somewhat common and intense rainstorms often last a few hours in the afternoons. Nighttime low temperatures in the high peaks often drop to slightly above freezing in the summer, while daytime highs range anywhere from 35°F to 70°F. Mountain breezes are common and should be taken into consideration when planning your clothing system.

SIERRA NEVADA, CA: Temperatures and weather conditions in the Sierras are also typically great for climbing conditions. Thunderstorms are also somewhat common and intense rainstorms often last a few hours in the afternoons. Nighttime temperatures in the high peaks often drop to slightly above freezing while daytime highs range anywhere from 35°F to 70°F. Summer temperatures for low elevation rock climbing around the Mammoth Lakes area can be quite warm, with averages ranging from 80°F to 90°F. Mountain breezes are not uncommon and should be taken into consideration when planning your clothing system. Another thing to consider for climbing in the Sierras, is the potential for wildfire smoke in the late summer months, like August - September.

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

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 contact your program coordinator prior to your trip to reserve rentals. These rentals must be paid for before your trip starts.

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 (Optional) Wool or synthetic, must fit under your helmet. Easily replaced with hooded layers after early season.	☐ Own ☐ Buy
Sun Hat 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	☐ Own☐ Buy
High Mountain 2-4 (Cameleon Lense).	
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 pair, two during the early season (April - May). 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
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. ★ NOTE: April-May courses are often much colder and may require a more heavily insulated glove like the 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 A lightweight, wool or synthetic sun hoody is ideal. Look for one with UPF 30+ sun protection. UPF Clothing protects better from the sun than sunscreen. ★ Examples: Patagonia Capilene Cool Daily Hoody, Outdoor Research Echo, Rab Pulse	☐ 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 ★ Example: Patagonia R1, Patagonia Nano Air, Arc'teryx Proton LT	☐ Own ☐ Buy
Soft Shell Jacket or Windproof Jacket A soft shell jacket is considered an 'action layer'. Its materials are designed to stretch and breathe while also maintaining wind and water resistance. This allows the user to leave this jacket on for a wide range of temperatures and conditions throughout the day, without the hassle of constantly changing layers. Wind proof jackets are lightweight and packable, but lack the breathability and stretchy nature of the soft shell. Windproof jackets are ideal for blocking wind and light precipitation during low output activities.	☐ Own ☐ Buy
Insulation Jacket AKA the "puffy." Down or Synthetic. This piece is worn in cold conditions or when not moving. Hood preferred. If choosing Down, water-resistant Down treatment is preferred to help prevent matting and loss of insulating ability if the jacket gets wet.	☐ 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. Bring one for early or late-season conditions, optional for mid-season conditions (depending on the weather). ★ 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.	☐ 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: Dam 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
Trail Running Shoes (Optional) Used by many for approaching mountain camps later in the season. Be aware that trail running shoes do not offer as much support when traveling with heavy packs, high stack shoes like the Hoka Mafate or Altra Olympus are not recommended. ★ Example Trail Runner: Altra Lone Peak, La Sportiva Kaptiva, Salomon Sense Ride 4	☐ Own ☐ Buy

Mountaineering Boots Must be stiff (full-shank or equivalent), crampon compatible, mountaineering boots. Double boots recommended prior to Mid-June. For courses after Mid-June, single boots should be used. ★ NOTE: We rent double plastic boots for our May/June courses and Single boots for the rest of the season. There are many makes and models out there and not all are created equal. Please consult with our Equipment Shop if you are uncertain about the acceptability of your chosen model. (Optional) For this program, some participants opt to use a 3/4 shank pair of boots. The 3/4		☐ Own ☐ Buy		
routes that require e	• • •	nches and rock climbing in warme now and rock.	er temps or on	
 ★ Example Double Boot : Scarpa Phantom 6000, La Sportiva G2SM ★ Example Single Boot : La Sportiva Nepal Cube, Scarpa Mont blanc Pro ★ Example 3/4 Boot : La Sportiva Trango Cube, Scarpa Charmoz 				
Gaiters (Optional) Knee or calf height. Best used in early-season conditions. Optional for mid or late-season. Gaiters do help protect pants from crampon holes regardless of the season. ★ Example: Outdoor Research Crocodile		☐ Own ☐ Buy		
Climbing		Packing Checklist		
Ice Axe A straight or slightly curved shaft ice axe is recommended. Adze is required. Please contact our Equipment Shop if you have any questions. Use the following table as a rough guide on length. Ice axe leashes are discouraged and not recommended.		☐ Own ☐ Buy ☐ Rent*		
	St	traight Shaft Axe		
	Personal Height	Recommended Length of Axe		
	5'8" or shorter	50-55cm		
	5'9"- 6'	55-60cm		
	6'1" and up	60-65 cm		
☆ Example : Petzl Gla	ncier, Petzl Sum'Tec, E	Black Diamond Raven Pro		
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. ★ Example: Petzl Meteor, Black Diamond Vision.		☐ Own ☐ Buy ☐ Rent*		
Rock Shoes Focus on comfort, so they can be worn all day. Avoid technical or aggressive rock shoes with a downturn. Avoid curled toes when sizing.		☐ Own ☐ Buy		

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. Available for sale in our equipment shop.	Own Buy
Belay Device Bring an auto-blocking device that accepts two ropes. Available for sale in our equipment shop.	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. ★ Example : Beal Jammy 35mm, Sterling Hollowblock 2 13.5	Own Buy
Trekking Poles One is required, two are highly recommended. 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. For early season programs, your 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 at AAI the morning of the course. 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
Day Pack (Optional) 25L to 35L is an ideal size. This will be used during rock climbing portions and can also be used as a summit pack. Ideally this pack is frameless so that it can be packed inside of your larger bag.	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	
Tent 3 season tents can be used if the rain fly goes all the way to the ground on all sides. A "bathtub" floor for the inner tent is also recommended. This means that the inner tent isn't all mesh but has water resistant floor material that scoops up from the floor for 4-12" before changing to mesh, like a bathtub. If there are any questions please consult our Equipment Shop to see if your tent is okay to use.	☐ Own☐ Buy☐ Rent*
If your tent does not have wind lines, an additional 6-10 ft of 3mm accessory cord is often needed for rigging your rainfly in a mountain environment.	
<u>-Early-season:</u> Double wall 4 season tent recommended. (April to Mid-June) <u>-Mid-season:</u> 4 season or 3 season tent. (Mid-June to August) <u>-Late-season:</u> 4 season tent recommended. (Late August to September) ★ Example 4-Season: Hilleberg Unna, Black Diamond Eldorado ★ Example 3-Season: Big Agnes Copper Spur, REI Half Dome	
Sleeping Bag Synthetic or Down. If you bring a synthetic bag bring one on the lower end of the temperature range since synthetic bags tend not to be as warm as down. If you sleep cold it is recommended that you bring a warmer bag than required for the seasonal conditions. If choosing Down, water-resistant Down treatment is preferred to help prevent matting and loss of insulating ability if the sleeping bag gets wet. -Early-season: 0°F to 20°F (-18°C to -6°C) -Mid-season: 20°F to 30°F (-6°C to -1°C) -Late-season: 15°F to 20°F (-10°C to -6°C) * 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 □ Early-season: 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. □ Mid or late-season: One inflatable or closed cell foam pad. ★ Example: ThermaRest XTherm	☐ 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. □ Early-season: Bring a bigger pot for melting snow; 1.5L to 2L □ Mid or late-season: 0.5L to 1L ★ NOTE: If you have a complete stove system like the Jetboil or MSR Reactor, and plan on eating out of your integrated pot, then you do not need to bring another pot.	☐ 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 □ Early-season: Bring a plastic bowl or mug, preferably with insulation. □ Mid or late-season: Bring a plastic bowl, insulation is not necessary. ★ NOTE: If you have a Jetboil or MSR Reactor type stove and plan on eating out of your integrated pot, then you don't need to bring a bowl. The same applies if you plan on only using commercially packaged dehydrated or freeze dried meals.	☐ Own ☐ Buy
Lighters Bring two.	☐ Own ☐ Buy
Hydration 3L capacity is recommended, though some people need more.	☐ Own ☐ Buy
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. -Early-season: Bring more water carrying capacity, usually in the form of bladders (4L to 8L) to reduce the number of times you need to melt snow. * Example: Nalgene 32 oz bottle, Hydrapak Seeker 2-3L, MSR Dromedary 4-8L	
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	
Toothbrush and Toothpaste Travel size recommended.	
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."	
Alarm Clock	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.	
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	☐ 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 Zip ties G-10 ft of 3mm accessory cord T 2 Trash bags that are big enough to line the inside of your pack with.	☐ Own ☐ Buy

Other Optional Items The items below are not required, although many are nice "luxury" items that can make your expedition more enjoyable.	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
Belay Gloves Lightweight and breathable glove with a durable leather palm. They protect your hands from rope burn, pinching, and sharp elements. ★ Example : Petzl Cordex	☐ 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. ★ Example: Petzl GriGri, Edelrid Megajul, Black Diamond ATC Pilot	☐ Own ☐ Buy
Chalk Bag and Chalk (Optional)	☐ Own ☐ Buy
Altimeter Watch If you have one then bring it, it is a great tool to have in the backcountry.	☐ 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.	☐ Own ☐ Buy
Ear Plugs For defense against snoring and high winds.	☐ Own ☐ Buy
Insect Repellent Biting insects such as mosquitoes and blackflies can be prevalent during different times of the season depending upon conditions and location. This is a nice item to have just in case. Sometimes even a headnet is a nice item to have.	☐ 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