



COLORADO ALPINE CLIMBING 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.

PROVIDED EQUIPMENT: Climbing rope, anchors, solid waste bags

Call or Email the Equipment Shop for Advice on Gear: Please feel free to contact the shop to help you get ready for your 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 - Website: <https://shop.alpineinstitute.com/>

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

[NOAA Estes Park, CO Forecast](#)

CLOTHING

Beanie/Toque

Wool or synthetic. Must fit under a helmet.

Buy
 Own

Sun Hat

Ideally fits under a helmet. Ball caps with a button on top are NOT recommended. Visors or athletic hats are more comfortable, vent better, and are easier to clean and dry out.

Buy
 Own

Buff/Neck Gaiter

Look for one that is UPF-rated. Lighter colors are better for warm conditions and darker for colder conditions.

Buy
 Own

Glacier Glasses

MANDATORY. Look for a pair that fits well and has side shields. The lenses should not let more than 12% of light through. Photochromic are more expensive, but usable in a wider range of light.

Examples: Julbo Spectron, Julbo Reactiv Performance, Julbo Reactiv High Mountain

NOTE: Those using contacts should also bring a pair of prescription glasses in the event that your contacts or solution are lost or damaged. If you only use glasses, get a pair of over-the-glasses glacier glasses.

Buy
 Own

Headlamp

Bring extra batteries or a charger for rechargeable battery style. Ideal range is 200-350 lumens.

Examples: Petzl Swift RL, Petzl Actik

Buy
 Own

Liner Gloves

Thin, lightweight, wool or synthetic gloves. Size to fit snug but not too tight. These could be worn alone in temps greater than 25°F when it is dry. UPF rated are ideal.

Examples: OR Vigor Sensor, The North Face Etip Grip

Buy
 Own

Midweight Softshell Glove

These gloves are used for belaying, tying knots, rope management, etc. Dexterity and durability are key. They provide slightly more insulation than a liner glove and are generally used in temps of 15°F to 30°F while actively using your hands. Water-resistant is recommended because they will dry faster.

Examples: Mountain Equipment Super Alpine, Rab Vapour-rise

Buy
 Own

Hard Shell Glove

Waterproof and insulated. If the glove lacks insulation, size it to fit a liner glove inside. Mainly used in wet conditions, cold temps, or when not moving.

Examples: Black Diamond Renegade, OR Highcamp

Buy
 Own

Sports Bra

Wool or synthetic. Avoid bras with adjusters and clasps, as they could get compressed by your pack straps. Racerbacks are a popular option.

Buy
 Own

Base Layer

A lightweight, wool or synthetic sun hoody is ideal. UPF 30+ sun protection is best.

Examples: Patagonia Capilene Cool Daily Hoody, OR Echo, Rab Pulse

Buy
 Own

CLOTHING CONTINUED

Active Insulation Layer

Lightweight “gridded fleece” or lightweight synthetic insulated jacket. Hood preferred. Active insulation weight - 40g/m². Heavier insulation weight - 60-80g/m²

Examples: Patagonia R1, Patagonia Nano Air, Arc’Teryx Proton LT

Buy
 Own

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 temps and conditions throughout the day without the hassle of constantly changing layers.

Windproof 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.

Example Softshells: Black Diamond Alpine Start Hoody, Rab Borealis, Mountain Equipment Squall, Patagonia Houdini Air

Example Windproof: Patagonia Houdini, Arc’Teryx Squamish Hoody

Buy
 Own

Insulation / Puffy Jacket

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.

Examples: Arc’Teryx Nuclei FL, Patagonia DAS Light, Patagonia Down Sweater, Arc’Teryx Cerium, Rab Alpine Series

Buy
 Own

Hardshell Jacket (Waterproof Rain Jacket)

Non-insulated jacket with a waterproof and breathable membrane. Three-layer construction is recommended. It must have a hood, ideally helmet-compatible. When sizing, make sure it can fit over other layers. Ski jackets are discouraged because they are usually not waterproof and have heavy insulation.

Look for Gore-Tex, eVent, Drilite, H2NO, Pertex Shield.

Examples: Patagonia Torrentshell, Arc’Teryx Alpha AR, Mountain Equipment Lhotse

Buy
 Own

Undergarments

Wool or synthetic. Long, compression-style can help reduce inner thigh chafing.

Buy
 Own

Base Layer Pants (aka “Long Johns”)

Wool or synthetic. Optional, depending on weather.

Examples: Patagonia Capilene midweight or thermal weight (Thermal is warmer)

Buy
 Own

Soft Shell Pants

Thin, weather-resistant, breathable, and stretchy. You will wear these a majority of the time.

Examples: Patagonia Altvia, Mountain Equipment Ibex, Arc’Teryx Gamma FL

Buy
 Own

Hard Shell Pants (Waterproof Rain Pants)

Non-insulated, waterproof, and breathable membrane. Full side zips are recommended. When sizing make sure it can fit over a base layer and soft shell pants.

Materials: Gore-Tex, eVent, Drilite, H2NO, Pertex Shield

Examples: Patagonia Torrentshell, Arc’Teryx Beta Pant

Buy
 Own

CLOTHING CONTINUED

Socks

Wool or synthetic socks that are at least mid-calf height. Modern boots are designed to insulate your feet, so a thicker sock is not recommended as these tend to lead to blisters and moisture retention. Using a lighter 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.

Examples: Darn Tough Coolmax Lightweight

- Buy
 Own

Approach Shoes or Trail Shoes

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

Example Trail Shoes: Topo Athletic Terraventure, Altra Lone Peak, La Sportiva Kaptiva, Salmon Sense Ride

- Buy
 Own

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.

(Optional) Some participants opt to use a 3/4 shank pair of boots. The 3/4 shank boots are better suited for approaches and rock climbing in warmer temps or on routes that require extensive technical snow and rock

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

- Buy
 Own

Gaiters

Knee or calf height. Best used in early-season conditions. Optional for mid and late season. Gaiters do help protect pants from crampon holes regardless of the season.

Examples: OR Crocodile

- Buy
 Own

CLIMBING

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.

Examples: Petzl Meteor, Black Diamond Vision

- Buy
 Own
 Rent

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

- Buy
 Own
 Rent

Crampons

Must be steel crampons with front points and compatible with your mountaineering boots.

Example: Petzl Vasak, Petzl Sarken

- Buy
 Own
 Rent

CLIMBING CONTINUED

Ice Axe

A straight or slightly curved shaft ice axe is recommended. Adze is required. Please contact the Equipment Shop if you have any questions.

Use the following info as a rough guide on length. Ice axe leashes are discouraged and not recommended.

| Personal Height | Recommended Length of Axe |
|-----------------|---------------------------|
| 5'8" or shorter | 50-55cm |
| 5'9" - 6" | 55-60cm |
| 6'1" and up | 60-65cm |

Example: Petzl Glacier, Petzl Sum'Tec, Black Diamond Raven Pro

- Buy
 Own
 Rent

Rock Shoes (Optional)

Focus on comfort, so they can be worn all day. Avoid technical or aggressive rock shoes with a downturn. Avoid curled toes when sizing.

Example: La Sportiva Tarantulace, La Sportiva TC Pro

- Buy
 Own

Slings

Bring one 48in (120cm) and one 24in (60cm) pre-sewn sling. Slings must be UIAA-rated for climbing.

Examples: Mammut Contact, Black Diamond Nylon Runner

- Buy
 Own

Belay Device

Bring an auto-blocking device that accepts 2 ropes.

Examples: Black Diamond ATC Guide, Petzl Reverso

- Buy
 Own

Carabiners

Must be UIAA-rated for climbing. Must have:

- 4 large pear-shaped munter-style locking carabiners
- 5 non-locking wire gate carabiners

Examples: Petzl Attache, Camp Photon Wire

- Buy
 Own

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

- Buy
 Own

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

- Buy
 Own

Prusiks

6mm nylon cord in three lengths; 13 ft, 6 ft, 5 ft. We recommend getting three different colors for easy identification.

- Buy
 Own

CLIMBING CONTINUED

Day Pack (Optional)

A 25L to 35L is an ideal size. Can be used as a summit pack. Ideally, this pack is frameless so that it can be packed inside your larger pack if you decide to bring it on the mountain.

Examples: Black Diamond Blitz 28, Mountain Equipment Tupilak 37+

- Buy
 Own

Internal Frame Pack

A 65L to 75L pack is the 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.

Examples: Black Diamond Mission 75, Mountain Hardware AMG 75, Arc'Teryx Bora 75

- Buy
 Own

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 has a water-resistant floor material that scoops up from the floor 4-12" before changing to mesh. If your tent does not have wind lines, an additional 6-10ft of 3mm accessory cord is needed for rigging your rainfly in a mountain environment.

- Early Season: Double wall 4-season tent recommended.
- Mid Season: 4-season or 3-season tent.
- Late Season: 4-season tent recommended.

Example 4-season: Hilleberg Unna, Black Diamond Eldorado

Example 3-season: Big Agnes Copper Spur, REI Half Dome

- Buy
 Own
 Rent

Sleeping Bag

Synthetic or down. If you bring a synthetic bag, bring one on the lower end of the temp range since synthetic bags tend not to be as warm as down. If you sleep cold, bring a warmer bag than required. If choosing down, water-resistant down treatment is preferred to help prevent loss of insulating properties if the bag gets wet.

- Early Season: 0° to 20°F (-18° to 6°C)
- Mid Season: 20° to 30°F (-6° to -1°C)
- Late Season: 15° to 20°F (-10° to -6°C)

Examples: Mountain Equipment Fireflash, Western Mountaineering Alpinlite, Rab Mythic Ultra 180

- Buy
 Own

Compression Stuff Sack

For your sleeping bag. If it is a down bag, a waterproof compression sack is recommended.

- Buy
 Own

Sleeping Pad

- Early Season: Bring 2. One inflatable and 1 closed-cell foam. The foam pad helps insulate from the snow and serves as a backup to the inflatable pad.
- Mid/Late Season: One inflatable pad or closed cell foam pad.

Example: ThermaRest XTherm

- Buy
 Own

Stove and Fuel

Liquid fuel or canister stove.

Examples: Soto Windmaster, MSR Windburner

- Buy
 Own

CAMPING CONTINUED

Pots

Bring 1 pot.

- Early Season: Bring a bigger pot for melting snow, 1.5L to 2L
- Mid/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.

- Buy
 Own

Utensils

Long-handled spoons make stirring hot liquids safer, and metal ones tend to not break as easily in cold temperatures.

- Buy
 Own

Bowl

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 using commercially packaged dehydrated or freeze-dried meals.

- Buy
 Own

Lighters

Bring 2.

- Buy
 Own

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.

- 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

- Buy
 Own

Water Purification

Water purification of some form is required. 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.

Examples: Aquatabs, SteriPen, Katadyn BeFree, Platypus Quickdraw

- Buy
 Own

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.

- Buy
 Own

OTHER ESSENTIALS

Toothbrush and Toothpaste

Travel size recommended

Buy
 Own

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."

Buy
 Own

Alarm Clock

You will be responsible for waking up at certain times throughout the program.

Buy
 Own

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.

Buy
 Own

Pee Cloth (Optional)

A reusable, antimicrobial pee cloth, used in the place of toilet paper or wet wipes.

Example: Kula Cloth

Buy
 Own

Urination Device (Optional)

Pee funnels such as the GoGirl or Freshette.

Buy
 Own

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

Buy
 Own

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

Buy
 Own

Lip Balm

Make sure it is SPF rated.

Example: Blistex Gold Five Star Protection SPF 30

Buy
 Own

Personal First Aid Kit

- Band-aids; Blister Treatment
- Prescription Drugs
- Ibuprofen, etc
- If you wear contacts, make sure you have spares if you can't see without them

Buy
 Own

Repair Kit

- Inflatable sleeping pad patch kit
- Duct tape (can be wrapped around a trekking pole or water bottle)
- Zip ties
- 6-10ft of 3mm accessory cord
- 2 trash bags that are big enough to line the inside of your pack with

Buy
 Own

OTHER OPTIONAL ITEMS

These items 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.

Gaia Navigation App

Optional smartphone app.

Buy
 Own

Map and Compass

Map should be of the program area. Compass must have declination adjustment.

Buy
 Own

Belay Gloves

Lightweight and breathable glove with a durable leather palm.

Example: Petzl Cordex

Buy
 Own

Assisted Braking Device

If you have a Petzl GriGri or similar assisted braking device, we suggest bringing it.

Example: Petzl GriGri, Edelrid Megajul, Black Diamond ATC Pilot

Buy
 Own

Chalk Bag and Chalk

Nice for hot days and sweaty hands.

Buy
 Own

Altimeter Watch

If you have one then bring it. It is a great tool to have in the backcountry, especially for navigation.

Buy
 Own

Pee Bottle

Used at night or when the weather is poor so you don't have to get out of your tent. A 32oz or larger capacity is strongly recommended.

Example: Hydrapak Seeker 2L, Collapsible 48oz Nalgene

Buy
 Own

Entertainment

Books, games, cards, music player, kindle, etc.

Buy
 Own

Portable Charging Device and/or Car Charger

Phone charger, battery pack, or solar panel.

Buy
 Own

Ear Plugs

For defense against snoring and high winds.

Buy
 Own

Insect Repellent

Biting insects such as mosquitoes and blackflies can be prevalent during different times of the season depending on conditions and location. Sometimes even a headnet is a nice.

Buy
 Own

Camera

Phone cameras or small point-and-shoot cameras are preferred.

Buy
 Own

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 car.

Buy
 Own