



**SHASTA MOUNTAINEERING SCHOOL
OVERNIGHT EQUIPMENT GUIDELINES
FOR MOUNTAINEERING SUMMIT CLIMBS**

These are guidelines for your personal climbing equipment and clothing for your summit climb of Mt Shasta with Shasta Mountaineering School. You should invest a considerable amount of time and research in developing a system that will work for you and the anticipated range of environmental conditions that are typical on Mt Shasta for your trip dates. If you have questions, please don't hesitate to email info@climbshasta.com with questions regarding your equipment and clothing selection.

MOUNTAINEERING EQUIPMENT —

1. Mountaineering Boots.

Hiking/backpacking boots are **not** acceptable, your boots must be mountaineering-specific. Mountaineering boots can be rented from the 5th Season in Mt Shasta City. For spring/early summer trips, a heavier weight insulated modern leather or synthetic mountaineering boot is recommended. For summer trips, a lighter weight summer mountaineering boot will work.

Spring/early summer example: La Sportiva Nepal Evo.

Summer example: La Sportiva Trango.

The 5th Season gear store in Mt Shasta City offers a number of modern mountaineering boots for rent from a large rental fleet. Make sure to reserve your boots online via their website well ahead of time. You'll need to get fitted for and pick up your boots the day before your trip starts. There is an after hours drop box in the rear door of the store in the alley.

<https://thefifthseason.com>

2. Gaiters (optional).

Gaiters should fit mid-calf. It is important to make sure they fit over your mountaineering boots. For some trips in the spring and early summer, these could be mandatory for your trip. For trips in the summer and in drier conditions, they could be completely optional.

3. Crampons (We can provide).

12-point steel mountaineering crampons are required. The fit compatibility with your mountaineering boot is very important.

- 4. Climbing helmet (We can provide).**
The helmet must be designed for mountaineering or rock climbing. Ski or bike helmets are not acceptable.
- 5. Ice axe (We can provide).**
60-75cm in length, the length of the axe depends on your height and the type of climbing.
- 6. Adjustable hiking poles (We can provide).**
The poles should be adjustable. Adjustable backcountry ski poles will also work.
- 7. Backpack (We can provide).**
An internal frame backpack between 60-80 liters in volume and designed for overnight backpacking or mountaineering. There will be group camping gear and food distributed amongst the group to carry in addition to your personal equipment.
- 8. Sleeping bag (We can provide).**
Down or synthetic insulation. Rated down to at least 15°F is required. The 15°F rating is the requirement for spring and early summer trips. For summer trips, you might get away with a sleeping bag rated for warmer air temperatures. The rating of the bag will depend on the weather forecast for the date of your specific trip.
- 9. Sleeping pad (We can provide).**
Either a closed cell foam or inflatable pad is required for a good night's sleep.
- 10. Climbing harness (We can provide).**
An alpine climbing harness that is easily packable is best. A rock climbing harness will also work.
- 11. Headlamp (We can provide).**
Fresh batteries.
- 12. Two 1-liter wide mouth water bottles (We can provide).**
Some summer trips may require three 1-liter water bottles. However, we try to limit the amount of water weight we carry due to the density of the water. CamelBak and other hydration bladders are strongly discouraged against due to a number of factors that are inconvenient while mountaineering, including hoses freezing and packability.
- 13. Insulated mug (We can provide)**
Or any cup that can be used for hot drinks.
- 14. Lightweight bowl and eating utensils (We can provide).**
- 15. Sunglasses.**
Dark and polarized lenses with some side wrap is required. Inexpensive and universal side shields can be purchased from Amazon.com to add extra side wrap to sunglasses of the "wayfarer" style design without side wrap.

CLOTHING –

LOWER BODY

1. **Breathable soft shell mountaineering-specific pants.**

We recommend a lightweight breathable and water-resistant soft-shell pant with a trim fit, designed specifically for alpine climbing. This is one of the most important layers and frequently overlooked items by climbers. You will spend almost the entirety of your trip in your water-resistant soft-shell pants.

Pants like the Black Diamond Technician Alpine Pants are good pants for summer mountaineering on Mt Shasta, Rab also makes a good selection of soft shell pants

Loose fitting and heavily insulated ski pants are highly discouraged and in most cases are not acceptable. A tighter athletic fit will help keep crampons spikes away from loose pant cuffs at your ankles, which is always a common source of tripping among experience and inexperienced mountaineers alike.

2. **2 pairs of mid-weight insulated wool socks.**

The requirement will vary depending on the date and anticipated weather conditions of your trip. Depending on the forecast temperatures, sometimes a lighter weight sock may be more appropriate, especially for the lower mountain.

Wool or synthetic, such as the Icebreaker brand. The amount of insulation in the socks should also be considered with the overall thickness of the mountaineering boot that it is paired with.

For spring and early summer trips, two pairs of mid-weight wool socks would be the requirement. One lightweight wool and one midweight wool could be a good consideration for when air temperatures on the lower mountain are warmer. For warm summer trips in July, two pairs of lightweight wool socks might be ideal.

3. **Underwear.**

Anything will work but our preference is lightweight wool because it helps reduce the likelihood of chaffing. Typically, we bring 2 pairs of underwear for a 3-day trip.

4. **Base layer bottoms.**

Personally, we almost never use them while climbing on the summit day because of the immense amount of body heat you will be generating while climbing. For spring and early summer trips, these might be consideration for trips with colder air temperatures. If you are going to use base layer bottoms, lightweight and wool or synthetic is the requirement.

Be aware that shedding your long underwear may not be a request that is easily accommodated on the summit morning by your guide. Boots, crampons, harness, pants, etc. all must be removed.

Typically we recommend against bringing base layer bottoms on most trips. Some

climbers may choose to carry base layer bottoms to sleep in. If base layer bottoms will improve the quality of your sleep, then definitely bring them as sleep is important. If in doubt, please bring base layer bottoms to the gear check and your guide will determine if they are appropriate based on the weather forecast for your trip.

5. Waterproof rain pants (optional).

These can be optional if the weather forecast looks favorable. Waterproof pants are useful if there is rain in the forecast. They are also useful for glissading, and adding extra layering in a poor weather. It is highly recommended that your pants are not insulated.

Cheaper price point rain pants from Amazon.com or REI will suffice. Be certain that there is a zipper at the ankle that allows the pants to be pulled on over your mountaineering boots.

6. Camp Shoes (optional).

Down booties work well to wear around camp in the snow. A lightweight pair of running shoes or even Crocs can also be nice during the summer months once camp has melted back to bare ground. If you do decide to consider bringing a camp shoe as an alternative to your mountaineering boots, they should be very lightweight and packable.

UPPER BODY —

7. Base layer top.

Lightweight and wool or synthetic.

A lightweight wool and athletic fitting long sleeve is our preference. Typically we just use this layer during cold weather, like on the morning of our summit attempt.

8. Heavy weight down insulated jacket.

This is another critical piece of equipment that is often overlooked. A heavy fill down jacket is a critical item any time of the year when climbing Mt Shasta, and you will not regret a thicker down jacket.

It should be lightweight, packable and designed for mountaineering. A lightweight down sweater like the Patagonia Nanopuff is not sufficient. If you're looking to save money and seek greater utility for future use, you may consider pairing two medium fill down jackets together.

The purpose of the heavy weight down jacket is to immediately trap and retain body heat while we are taking breaks during the early morning hours of our summit attempt.

The Rab Neutrino Pro is an example of a good down jacket appropriate for mountaineering. In the summer months, depending on the forecast, there can be

some flexibility for warmer trips during the late summer.

9. Mid layer top.

Midweight fleece, or some other wool/synthetic insulating layer.

10. Shell Jacket

Hard shell or soft shell can both work. A light weight wind breaker may also work. This layer doesn't always need to be a 3-layer Goretex jacket, but it should be capable of breaking the wind. In the event your trip has precipitation forecast, it should be waterproof.

11. Hooded Sun Shirt

For nearly all trips and especially summer trips, a hooded sun shirt could nearly be considered a required piece of clothing.

It is common for beginner climbers to underestimate the intense heat and radiation reflected by the sun and increased effect due to the thinner atmosphere at altitude. The hood helps keep the sun from directly burning your neck and ears, and the tops of your arms and hands. If you don't want to purchase a hooded sun shirt, it is very important that you have a system in place to keep the sun directly off your skin. However, we would highly recommend to purchase a hooded sun shirt.

Our favorite is the Outdoor Research Echo Sun Hoodie because it is thinner than most hooded sun shirts so it will breathe well for climber's with core body temperatures that run on the warmer side.

12. Short sleeve shirt.

Lightweight, and wool or synthetic. The air temperatures on the lower mountain can be very warm. A lightweight running shirt is useful if you don't bring a hooded sun shirt. Often times, I'll just bring one or the other.

13. Neck/face buff or balaclava.

To keep the head and ears warm. The face buff also helps keep the wind off your face. Typically, we don't wear thick wool beanies while climbing due to the fact they don't interface very well underneath the climbing helmet. This is where a thin balaclava or neck buff works well. Typically, we prefer a thinner material rather than thicker due to the amount of body heat we'll be generating while climbing to the summit.

14. Lightweight liner gloves.

Useful around camp or when hiking without an ice axe in your hand. Liner gloves can also be used to add extra insulation when paired inside of a leather mountaineering glove.

15. Two pairs of mid-weight insulated leather mountaineering gloves. Depending on the date of your trip, one lightweight pair and one mediumweight may be ideal.

This is another critical piece of equipment that is often overlooked. Correct gloves are very important. Rather than purchasing a single expensive heavyweight pair of gloves that lack dexterity when holding the ice axe and are your only reliable pair of gloves, we recommend having at least two pairs of leather gloves. If one pair of gloves get wet, you have a backup pair stored in your backpack. If you lose a glove, you also have another backup set.

For spring and early summer trips, you might consider purchasing two pairs of mid-weight leather mountaineering gloves. For summer trips in July with warmer air temperatures, one lightweight leather glove specific to alpine climbing and one midweight leather glove may be the best approach.

The Orotvox Mountain Guides gloves, the Outdoor Research Aksel Work Gloves and the Black Diamond Dirtbag gloves are all great examples of lightweight gloves that work well on Mt Shasta. The Black Diamond Guide Gloves are likely to be too thick, bulky, and too much insulation for most people while climbing Mt Shasta, especially when being physically active.

16. Warm hat.

A thicker wool beanie is ideal for sitting around camp, but it won't fit under your helmet. If you're concerned about a cold head or cold ears, consider a thin skull cap style beanie that will interface well under the climbing helmet. A neck gaiter also pairs well underneath mountaineering helmet straps.

17. Sun hat or ball cap.

The sun and heat on Mt Shasta can be just as intense as the cold. A sun hat is a required piece of equipment for all climbs. Consider synthetic material so it dries quickly.

PERSONAL ITEMS

1. Toilet paper.

We will pack out all our human waste. We will provide human waste pack out bags. Rather than bringing an entire fresh roll of toilet paper, which is well in excess of what you will use on your trip, consider waiting to the roll in use in your home bathroom gets to the 25-50% level and bringing that. Toilet paper can also be useful for cleaning dirty dishes after meals. We will pack out all used toilet paper.

2. Zip lock bags, stuff sacks and other miscellaneous bags for organization.

Zip locks are use for organizing your snacks and packing out trash. Also, extra loose stuff sacks offer great utility to have on hand for pack organization.

3. **Garbage bag.**

Can be used for helping with packing out human waste, as a pack liner, or emergency poncho. At least one plastic garbage bag can be a good multipurpose item to have. Be careful not to let it accidentally blow away on the mountain.

4. **Personal items.**

Tooth brush, blister kit, over the counter medications, and very small first aid kit. Duct tape is our favorite personal solution for blisters.

5. **Sunscreen with greater than 30SPF.**

We prefer a zinc-based cream. Aerosol spray bottles are bulky and not appropriate.

6. **Lip balm with an SPF rating.**

Very important and underestimated.

7. **Earplugs.**

Optional, but we will be sharing tents as a climbing team. They are useful if someone is snoring. Ear plugs are also useful if the wind is shaking the tent walls and creating noise at night while trying to sleep.

8. **Backup USB Battery Bank**

Very useful for recharging your phone for photos. Highly recommended. Don't forget any associated charging cords. There is cell phone reception on most of the mountain and in many of the camps. Your cell phone is also one of the quickest and most reliable forms of emergency communication.

9. **Personal food and snacks**

I will supply all breakfasts and dinners. Guests will need to provide their own snacks. The best way to think of the summit day is as an endurance event. For food, everyone should carry a significant amount and a variety of snacks for each day of the trip. I will usually bring a lot more food than I think I'll need. Dried meats, cheeses, jerky, dried fruit, protein bars, and energy chews are all good choices. I also like to bring candy or chocolate because I know it is easy to eat while on the go or to force myself when I'm not that hungry. Electrolyte tablets (LMNT or Nun brand) are also good to add to your water.

There is no proper "lunch" and there is no time or opportunity for boiled water to dehydrate meals for lunch. We just constantly eat snacks throughout the trip because there is so much we have to accomplish on these trips. There is also a chance you still may be hungry after dinner or breakfast so it's good to have more snacks than you think you might need.

10. **Water Supply and Water Filtration**

There's no need for personal water filtration or purification tablets. All water will be supplied via snow melt or fresh streams. Mt Shasta's spring and snow melt water is filtered through volcanic rock and is some of the cleanest and most well-balanced water in the world.

11. Tarp or small blanket for gear checkout and check in (optional)

At the beginning and end of the trip, having a spare blanket or blue tarp to lay out equipment on the ground at the park can be helpful to keep your equipment from being contaminated from the wet grass. All equipment must be laid out in an organized manner for inspection prior to departing on our trip.