



# Alpine Institute

## Rope Rescue Equipment Checklist

This list is designed as a “worst case scenario”, a trip with significant inclement weather. 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 is important to plan for the worst and hope for the best.

On the first day of your program, an AAI Guide and Equipment Specialist will work with you to refine your mountain kit. They will ensure that you bring exactly what is needed. It is acceptable to bring too much clothing and equipment to your initial meeting. It is also fine to bring things that you may have questions about. Any extra equipment can be left behind at our Gear Shop for safekeeping.

The Cascade climbing season is defined as May 1st through October 1st. This list will reference early, mid, and late-season conditions. They are defined as follows:

### **Early Season:** May 1 - July 1

There is usually significant snow both on the ground as well as on the glaciers. You should expect to encounter deep, wet snow during the day and firm conditions at night. Overnight temps range from 15° to 40°F (-9° to 4°C). Daytime highs range from 35° to 70°F (1° to 21°C). Precipitation as snow or rain can be likely.

### **Mid Season:** July 1 - September 1

Temps range from 40° to 50°F at night with occasional dips below freezing. Daytime temps often reach 70°F. You should expect the possibility of freezing temps above 9000ft on summit days throughout the summer. Though mid-season tends to be dryer, the possibility of rain is always there.

### **Late Season:** September 1 - October 1

September is a varied month. Temps begin to drop both during the day and at night. Late in the month, you may encounter an increase in snow and rain.

Please be sure to check the forecast several days before your course to ensure that you are properly prepared. You can view the weather here:

[NOAA Mt. Baker-Snoqualmie National Forest Weekly Forecast](#)

**PROVIDED EQUIPMENT:** Climbing rope, anchors, solid waste bags.

**RENTALS:** Equipment available for rent through the AAI Equipment Shop is designated with a “Rent” check box. These items can be rented on the first day of your course.

You can call or email the Equipment Shop for advice on gear.

[shop@alpineinstitute.com](mailto:shop@alpineinstitute.com)

360-671-1570

# CLOTHING

## Beanie/Toque (Optional)

Wool or synthetic. Must fit under a helmet. Easily replaced with hooded layers after the early season.

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

## Sun Glasses

Preferably with UVA/UVB protection

Buy  
 Own

## Headlamp

Bring extra batteries or charger for rechargeable battery style. Ideal range is 200-350 lumens.  
*Examples: Petzl Swift RL, Petzl Actik*

Buy  
 Own

## Sports Bra

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

Buy  
 Own

## Sun Hoody

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*

Buy  
 Own

## Active Insulation Layer

Lightweight “gridded fleece” or lightweight synthetic insulated jacket. Hood preferred. Active insulation weight - 40g/m<sup>2</sup>. Heavier insulation weight - 60-80g/m<sup>2</sup>  
*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 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.  
*Examples: Arc’Teryx Nuclei FL, Patagonia DAS Light, Patagonia Down Sweater, Arc’Teryx Cerium, Rab Alpine Series*

Buy  
 Own

## CLOTHING CONTINUED

### 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 undergarments can help reduce inner thigh chafing.

- 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. Ideally has at least 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*

*Examples: Patagonia Torrentshell, Arc'Teryx Beta Pant*

- Buy  
 Own  
 Rent

### Socks

Wool or synthetic socks that are at least mid-calf height.

*Examples: Darn Tough Coolmax Lightweight*

- Buy  
 Own

### Approach Shoes

Made with sticky climbing rubber, used 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*

- Buy  
 Own

## CLIMBING

### 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 harness is ideal for this course.

*Example Padded Harness: Petzl Adjama, Arc'Teryx AR-395a*

- Buy  
 Own

### 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

### Belay Device

Bring an auto-blocking device that accepts 2 ropes.

*Examples: Black Diamond ATC Guide, Petzl Reverso*

- Buy  
 Own

# CLIMBING CONTINUED

<b>Slings</b> Bring one 48in (120cm) and one 24in (60cm) pre-sewn sling. Slings must be UIAA-rated for climbing. <i>Examples: Mammut Contact, Black Diamond Nylon Runner</i>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Cordelette</b> Bring at least 21 feet of 7mm perlon/nylon climbing cord.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Carabiners</b> Must be UIAA-rated for climbing. Must have: <ul style="list-style-type: none"><li>• 4 large pear-shaped munter-style locking carabiners</li><li>• 5 non-locking wire gate carabiners</li></ul> <i>Examples: Petzl Attache, Camp Photon Wire</i>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Tubular Webbing</b> One 12-foot section of tubular webbing and one 5-foot section of tubular webbing. The 12-foot section is for a chest harness. If you have a full-strength chest harness, it may be used instead of the 12-foot section of webbing.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Belay Gloves</b> Lightweight and breathable gloves with a durable leather palm are ideal.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Purcell Prusik</b> Purcell prusiks are specific prusik cords used in rescue applications. Most people will require 32.5-feet (10 m) of 6mm prusik cord. (Precut lengths are available for sale at AAI.) We will make these in the class. They do not have to be pre-rigged.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Rappel Backup</b> 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. If you have two, bring them.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Trekking Poles</b> 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.	<input type="checkbox"/> Buy <input type="checkbox"/> Own <input type="checkbox"/> Rent
<b>Day Pack</b> 30L to 50L is a recommended size range. Ideally fits all of your necessities for the day including climbing equipment.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Hydration</b> 2L capacity is recommended, though some people need more. A common approach is to bring a 1-2 liter bladder and a 1 liter hard sided bottle. The bottle is an important backup to the bladder if it gets punctured.	<input type="checkbox"/> Buy <input type="checkbox"/> Own
<b>Food</b> You are responsible for your own food.	<input type="checkbox"/> Buy <input type="checkbox"/> Own

## OTHER ESSENTIALS

### Technical Rescue Riggers Guide

3rd edition by Rick Lipke.

Buy  
 Own

### Notebook

A small Right-In-The-Rain notebook and mechanical pencil work best.

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

### 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. 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*

Buy  
 Own

### Menstrual Cup (Optional)

There are many things to consider about backcountry menstruation, click on the [link](#) for more information.

*Examples: Diva cup, Saalt, Lunette*

Buy  
 Own

### Sunscreen

At least an SPF of 30+, zinc-based is preferred. Small travel-size tubes are recommended so you can put them in a close-by pocket for easy access.

*Examples: 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

<p><b>Repair Kit</b></p> <ul style="list-style-type: none"> <li>• Inflatable sleeping pad patch kit</li> <li>• Duct tape (can be wrapped around trekking pole or water bottle. Gorilla Tape tends to be the best brand for the mountains).</li> <li>• Zip ties</li> <li>• 6-10ft of 3mm accessory cord</li> <li>• 2 trash bags that are big enough to line the inside of your pack with</li> </ul>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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<b>OTHER OPTIONAL ITEMS</b>	
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<p><i>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.</i></p>	
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<p><b>Additional Optional SAR Equipment</b></p> <p>If you have equipment that you would like to practice with, please bring it. During the first nine days of the program, we will determine whether we want to bring it into the mountains for the last four days.</p>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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<p><b>Assisted Braking Device (Optional)</b></p> <p>If you have a Petzl GriGri or similar assisted braking device, bring it with you.</p>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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<p><b>Insect Repellent</b></p> <p>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.</p>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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<p><b>Car Charger</b></p> <p>Consider bringing an extra battery pack as well, having a lot of people using car charger cables is difficult.</p>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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<p><b>Comfortable Pants or Shorts</b></p> <p>Comfortable cotton clothing that will be used in the classroom.</p>	<input type="checkbox"/> Buy <input type="checkbox"/> Own
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