



BACKCOUNTRY SKIING

San Juan Mountains, CO

EQUIPMENT CHECKLIST

It is essential that you do a careful job in selecting and preparing your equipment for this course. The weather in the mountains is a major objective hazard, even in the summer, and in the winter it can present extreme challenges to survival. We will not head into the mountains until everyone has appropriate equipment. Showing up unprepared can result in a delayed start to the trip or an altered itinerary. For your own comfort and safety, please take this list seriously and come in good physical condition. If you have any questions about choosing your gear, feel free to call the Colorado Program Coordinator and ask for advice.

The equipment you bring must function well in a wide variety of conditions. Your clothing should be warm, lightweight, dry quickly, and allow good freedom of movement. The layering principle, based on several thin layers of insulation (rather than one thick one) meets these needs well. As a general rule you should not bring more clothing than you can wear at one time. With the exception of extra socks and hand wear, avoid duplicating layers. Backcountry skiing is always a challenge. Travel light to make your experience more enjoyable.

CLIMATE: 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.

GEAR PREPARATION: Please take the time to carefully prepare and understand your equipment and clothing. If possible, it is best to use it in the field, perhaps on a skiing trip. Those skiing or snowboarding should possess intermediate to advanced skills in their preferred travel method.

ASSISTANCE: At AAI we take equipment and its selection seriously. Our Equipment Services department is expertly staffed by climbers, skiers and guides. Additionally, we only carry products in our store have been thoroughly field tested and approved by our guides. This intensive process ensures that all equipment that you purchase from AAI is best suited to your course and future mountain adventures. Please contact us to select equipment for your course.

Please contact the Equipment Shop at 360-671-1570 for assistance in selecting equipment for your course.

Rentals: Equipment items that may be available for rent are designated with an **(R)**. *If you will be needing any rental equipment please fill out a [Rental Request Form](#) as soon as possible so that we can best guarantee rental availability for your course.*

Clothing and Footwear	Packing Checklist
<p><u>BASE LAYER TOP</u> This will be your base layer and should be “lightweight or silk weight” synthetic or wool. No cotton. ☆ <i>Materials: Synthetic, wool</i> ☆ <i>Examples: AAI’s synthetic t-shirt, Outdoor Research Essence Top, Patagonia Lightweight Capilene</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>BASE LAYER BOTTOM</u> Look for the same features of your Base Layer Top. They should fit comfortably under your soft shell pants and should be at least midweight. One pair is sufficient. ☆ <i>Materials: Synthetic, wool</i> ☆ <i>Examples: Patagonia Capilene, Mammut Go Dry, Mountain Hardware Power Stretch Tight</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>UNDERGARMENTS</u> To wear under your base layer. ☆ <i>Materials: Wool or synthetic are ideal</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>SOCKS</u> Bring two or three complete changes. Adjust your sock system ahead of time to perfect your boot fit. No cotton. ☆ <i>Materials: wool or synthetic are ideal</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>2nd LAYER TOP</u> A lightweight fleece shirt or hoody. A chest pocket is a helpful feature. ☆ <i>Materials: Nylon, micro weave fabrics, fleece, wind stopper</i> ☆ <i>Examples: Rab PowerStretch Fleece, Patagonia R1</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>SOFT SHELL / WINDPROOF JACKET</u> Thin, light, stretchy, breathable but wind and snow resistant layer that is comfortable to wear. This will be your 'action layer' and the outer layer that you spend the most time in. Hoods are optional but highly recommended. Size your jacket to be trim fitting, but large enough to fit over your base and second layers. This layer will go over your base and 2nd layers, but under your shell and parka if wearing this layer in combination with those layers. No waterproof coated nylon, as it is not breathable. ☆ <i>Materials: Schoeller, Powerstretch, Powerdry, or similar</i> ☆ <i>Examples: Patagonia Houdini, Rab Cirrus Wind Top, Rab Vapor Rise Lite-Alpine, Mountain Equipment Squall</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>SHELL JACKET</u> Thin, light, stretchy, breathable but wind and snow resistant layer that is comfortable to wear. This will be your 'action layer' and the outer layer that you spend the most time in. Hoods are optional but highly recommended. Your shell should be sized to comfortably fit over your other base and mid-layers (minus your insulating layer). Choose the lightest, most packable shell that will still get the job done. Avoid extra pockets (one or two chest pockets is all you need), 3-layer Gore-Tex, and hanging linings. Your jacket should have a hood. ☆ <i>Materials: eVent, Gore-tex, h2No, or similar</i> ☆ <i>Examples: Patagonia Houdini, Rab Cirrus Wind Top, Rab Vapor Rise Lite-Alpine, Mountain Equipment Squall</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>SOFT SHELL PANT</u> Look for the same features as your soft shell jacket. This will be your outermost layer most of the time for your legs. A thigh pocket is a useful feature for storing small items. Your base layers need to fit under these pants comfortably.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

<p>★ <i>Materials:</i> eVent, Gore-tex, h2No, or similar</p> <p>★ <i>Examples:</i> Black Diamond Alpine, Arc'Teryx Gamma, Mountain Equipment Comici</p>	
<p><u>LIGHT INSULATING JACKET</u></p> <p>The goal for this piece is to add warmth to your internal layering system. Depending on your clothing system and the environment you are in, you may fit this layer underneath your shell gear (e.g. fleece sweaters) or over your shell gear (lightweight insulated jackets). If choosing fleece, pick modern fleece garments with waffle grid patterns and avoid “windproof fleece” – it is not breathable enough. The weight and design of this piece will vary based on the other items of climbing that you are bringing.</p> <p>★ <i>Materials:</i> fleece, Primaloft, down</p> <p>★ <i>Examples:</i> Patagonia Nano Puff or Nano Air Hoody, Rab microlight Alpine, Arc'Tryx Atom LT Hoody, OR Cathode Hoody</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>MID-WEIGHT INSULATION JACKET</u></p> <p>A warm puffy jacket with an optional hood. These come in many shapes, sizes and temperature ratings. If you tend to get cold easily, opt for a slightly warmer more substantial parka.</p> <p>★ <i>Fill Materials:</i> Primaloft, down</p> <p>★ <i>Shell Material:</i> Nylon epic eVent</p> <p>★ <i>Examples:</i> Rab Xenon X Hoodie, Patagonia DAS parka</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>GLOVE LINERS</u></p> <p>You will wear these for much of your time on the mountain. They need to be dexterous and comfortable, but not necessarily very insulating. Bring two pairs.</p> <p>★ <i>Materials:</i> Fleece, Powerstretch, or similar</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>MIDWEIGHT/SCHOELLER/LEATHER GLOVES</u></p> <p>The most desirable glove is one that is comfortable and dexterous, so that it can be worn all day. It should feature leather palms to withstand ski edges and snow saws. These come in different weights, so choose a medium thickness for your trip.</p> <p>★ <i>Materials:</i> Softshell, windstopper fleece, leather or similar</p> <p>★ <i>Examples:</i> Petzl Cordex Plus Gloves, Mountain Equipment Super Alpine Glove</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>EXPEDITION / SHELL GLOVES</u></p> <p>A waterproof modular shell sized to fit over your liner gloves, these will be worn during any cold/stormy weather and need to be dexterous enough to manipulate ski poles, buckles, and transceivers. The highest priority with these gloves is to keep your hands and liner gloves dry.</p> <p>★ <i>Materials:</i> Gore-tex, Schoeller</p> <p>★ <i>Examples:</i> Outdoor Research Arete Glove, Black Diamond Guide Gloves, Marmot Ultimate Ski Gloves</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>BEANIE HAT/ TOQUE</u></p> <p>A thick warm hat is crucial for keeping warm.</p> <p>★ <i>Materials:</i> Fleece, wool, windstopper, or similar</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>Skiing & Avalanche Equipment</p> <p><i>Note: We allow skis, splitboards, or snowshoes for this course.</i></p>	
<p><u>SNOWSHOES (R)</u></p> <p>They should be equipped with an integral crampon and/or aggressive traction on the bottom of the snowshoes.</p> <p>★ <i>Examples:</i> MSR Revo Ascent</p> <p>★ <i>Note:</i> Large profile basic models made by Tubbs, Atlas, and Sherpa do not work well and are not recommended. Models by MSR are proven and quite durable.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent

<p>SNOWSHOE BOOTS</p> <p>Make sure they are warm, waterproof, and comfortable to walk in!</p> <p>★ <i>Note: Mountaineering boots may also be used.</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SKI BOOTS</p> <p>We strongly encourage the use of randonee (alpine touring) equipment. If you are an experienced telemark skier, modern telemark gear will also be accepted. Make sure your boots fit you snug enough for downhill performance, but are comfortable enough to keep your toes warm. The hinge should be flexible enough to allow for comfortable walking, even for long distances. They must be equipped with a deep rubber lugged sole.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SNOWBOARD BOOTS</p> <p>To be paired with snowshoes for the ascents or use in your splitboard.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SKIS/SPLITBOARD</p> <p>Skis with a backcountry flex (softer) are preferable to skis designed for hard packed lift serviced skiing. You may choose to bring either telemark skis or alpine touring skis. Telemark skis must be equipped with full metal edges. If you use a cable binding, bring a spare cable. Equip your skis with runaway straps. Alpine touring skis should use bindings that allow for forward and lateral release.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>CLIMBING SKINS</p> <p>Make sure the glue is tacky and that the skins are the correct width and length for the skis you will be using. Size these to cover the entire base, minus the edges.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SKI POLES</p> <p>Adjustable trekking poles with a full size basket are recommended. Traditional ski poles will also work. Ski/Probe poles are not a substitute for the avalanche probe.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SKI PACK</p> <p>Your pack should fit well, move with you, and not be a major hindrance when downhill skiing. Choose a model with ice axe loops and straps to carry your skis easily. Some models feature additional avalanche features such as an "Avalung" or airbags.</p> <p>★ <i>Size Range: 40 - 45 liters</i></p> <p>★ <i>Examples: Mammut Ride R.A.S 30L, Black Diamond Dawn Patrol</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>AVALANCHE EQUIPMENT (R)</p> <p>If you have your own Avalanche Transceiver, Probe, and Shovel, please call AAI to confirm that they will be appropriate for this course. If you do not own these items they can be rented from AAI.</p> <ul style="list-style-type: none"> ● Avalanche Transceiver: Your beacon MUST be a modern, single frequency (457kHz) beacon. Three antenna beacons are required. If your beacon is older than 5 years, you should consider retiring it or returning it to the manufacturer to have it tested for function and frequency drift. ● Probe: 230cm minimum. Carbon fiber is lighter and suffers less deflection than aluminum models. ● Shovel: We require collapsible metal (aluminum) shovels with a blade surface of at least 3000 cubic centimeters. Newer models are lighter, stronger, and more ergonomic than older ones. 	<input type="checkbox"/> Own <input type="checkbox"/> Buy <input type="checkbox"/> Rent
<p>SKI RUNAWAY LEASHES AND BRAKES</p> <p>Required for keeping your skis attached to you so that your skiing doesn't turn into a walking trip.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

Food	
<p>FOOD Bring plenty of quick, high–energy lunch food. It helps to keep you warm.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>HYDRATION Bring two 1-quart bottles with wide mouths. Some people like to use Hydroflaks or Water Bottle Parkas to keep liquids warm. It can be difficult to stay hydrated when you have to drink extremely cold water. <u>No Camelbaks</u> or similar water bladders, they will freeze.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>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</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
Other Essential Items	
<p>SUNSCREEN With Sun Protection Factor (SPF) 30 or higher. A couple of 1oz tubes are adequate and work better than one large one. For the fair skinned, the higher the SPF, the better. (Dermatone produces an effective 1” diameter stick as well as a translucent zinc oxide lotion.) Sunscreen is prone to freezing in the cold and smaller containers fit well into pockets for warming.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>PERSONAL MEDICAL KIT For sunburn, blisters, headaches, and minor cuts and scrapes. Please include duct tape, moleskin, bandages, and prescription at a minimum.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>LIP PROTECTION Bring 2 containers/applicators with the highest SPF available.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>GLACIER GLASSES Choose a model with 100% UVA/UVB protection. Keeper strings like “Croakies” are useful to prevent dropping your glasses while skiing. Those using contact lenses should bring a pair of prescription glasses if available.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SKI GOGGLES For use in high winds and heavy snow. These should be lightly tinted but not so dark that the 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.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>HEADLAMP A high output LED model. Bring fresh batteries and one set of extra batteries. Flashlights are not acceptable. ★ Examples: Petzl Tikka XP, Black Diamond Spot</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>REPAIR KIT Your repair kit should include:</p> <ul style="list-style-type: none"> • duct tape (can be wrapped on water bottles or ski poles) • Glop Stopper for your skins • and the appropriate spare binding or snowshoe parts 	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>MULTI-TOOL or POCKET KNIFE Leatherman Tool or Swiss army style is good.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

Optional Items	
<p>CAMERA</p> <p>We recommend a small point-and-shoot camera that can easily be carried in a convenient to reach zipper-pocket. Though some climbers bring them, SLR cameras require special care because of weight, bulk, and fragility. Smartphone cameras have come a long way and are also becoming a convenient standard.</p> <p>★ <i>Note: No battery powered, auto-focus cameras perform well in the cold. Digital cameras can work well but require extra care to protect them from the cold and elements. If bringing a digital camera, consider your battery needs. If your camera uses a proprietary lithium ion type you may want to bring an extra. If your camera uses AA or AAA batteries, use lithium batteries and bring one or two sets of extra batteries, more if you take a lot of photos.</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>LIGHTWEIGHT BALACLAVA/ BUFF</u></p> <p>A balaclava is a warm hat that can be pulled over the head to the shoulders. It completely covers the head except for an opening for the face. It should provide excellent wind protection for the chin, ears and neck. A Buff can substitute for this.</p> <p>★ <i>Materials: Powerstretch, fleece, polypro, windpro</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>SMALL FOAM PAD</p> <p>Can be useful for sitting or kneeling on during field instruction. Your pack can also serve this purpose.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>SKI CRAMPONS</u></p> <p>These come in a variety of widths, be sure yours are wide enough to fit over your skis. <i>Most useful for March courses.</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p>HAND / FOOT WARMERS</p> <p>Recommended for people that are susceptible to cold hands and toes. These should be small, disposable type products.</p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy
<p><u>GAITERS</u></p> <p>Depending on the fit of your pants to the boot, gaiters may be necessary to keep snow out.</p> <p>★ <i>Materials: Schoeller, nylon, Cordura</i></p>	<input type="checkbox"/> Own <input type="checkbox"/> Buy

Additional Details:

The Equipment Shop at the American Alpine Institute provides clothing and equipment for purchase, rental gear, and advice. Shop staff members are great climbers themselves and deeply involved in evaluating and testing gear. They are considered by many outdoor gear manufacturers to be the most expert in the country. They thoroughly understand the needs of climbers who will be rock climbing, ice climbing, mountaineering, or exploring the world on international expeditions.

Please consider our staff members part of your resource team in preparing for your trip. AAI Equipment Specialists are on hand to consult with you on specific gear needs, to answer questions on the latest equipment and innovations, and to make recommendations on best choices of clothing and equipment. They can assure that you are equipped with the best possible gear for your climbs. If you have any difficulty determining whether some particular items of clothing or equipment you already own will serve you well on a particular trip, they can help you answer that question.

Guides Choice International Field Testing

The Equipment Shop at the American Alpine Institute also administers AAI's prestigious [Guide's Choice Award](#). Equipment and clothing that have been awarded the Guides Choice designation have proven to be the top item in their product category. The awards are made on the basis of excellence in design,

performance, and durability demonstrated in rigorous international field tests carried out by the professional guides of the Institute.

Call or E-mail the Equipment Shop for Advice or Gear

Please feel free to contact us and to let us 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

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