

American Alpine Institute ^{Ltd.}

BOLIVIA MOUNTAINEERING & TREKKING EQUIPMENT LIST

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During your program in Bolivia you will encounter a very wide range of temperatures and weather conditions, and therefore 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), covered with an outer weather-proof shell, meets these needs well.

On the trek of Part I, temperatures will usually range from a low of 25F at night (at our highest camp) to highs in the day of 40F to 70F. There is little difference in the equipment needs between Parts II and III. Even if you do not plan to participate in Part III (the ascent of Illimani) you will still need to bring all the items on the following list. The ascent of Illimani, however, tends to be about 5 to 10 degrees colder than the climbs undertaken during Part II. This, in combination with the wind which often blows from the Altiplano and across the west face of Illimani, makes Part III somewhat colder than Part II ascents. You should be particularly careful that your boots are adequately warm and comfortable in temperatures as low as 0F.

During Part II, night time temperatures can drop to the lower teens at our high camps. Daytime summit temperatures vary greatly. On a still, sunny day it can be well above the freezing point, but when the weather is windy and the temperature drops into the teens, the climbing can be very, very cold. At our base camps temperatures invariably drop below freezing at night, but usually warm up into the 40's or 50's during the day. Once or twice every year a storm drops several inches of snow at the level of Lake Titicaca.

Please take the time to choose your clothing and equipment carefully, it may make the difference between a comfortable and successful trip and one which could have been more enjoyable. If you have any questions don't hesitate to call the Institute office.

CLOTHING

Boots - Plastic climbing boots are highly recommended mostly for their warmth and drying speed. Models such as the Koflach Degre, Lowa Civetta, and Scarpa Inverno perform well. Leather mountaineering boots are adequate as well. However they must be designed specifically for mountaineering* and, for most, used with super gaiters. La Sportiva's Nepal Extreme, Kayland Revolution, and Salomon's Super Mountain are good examples. As a point of reference most people use plastic boots.

*If you plan to bring leather boots, please contact our shop staff prior to the course to discuss the specific model. They will also need to be examined and approved by your guide. They must have at least a half length steel shank, be thoroughly waterproofed, and be warm enough for temperatures below freezing. Additionally, chemical toe warmers are required if you bring leather boots (at least six toe-specific warmers).

Gaiters - Knee high. If you buy gaiters ahead of time make sure they are large enough to fit over plastic climbing boots. Required for everyone who is not bringing supergaiters.

Supergaiters - Highly recommended for part III if you have cold feet or if you are not sure your boots can comfortably handle temperatures down to 0F. They will be a necessity if you are using leather mountaineering boots. Supergaiters should be fit, attached, and tested well in advance of your trip. Getting them on your boots is a rather involved process and if they come off while on the mountain it will be extremely difficult to get them back on. Look for models that have some insulation, particularly on the lower boot rather than just heavy fabric. Models like the Wildline, La Sportiva Eiger insulated, and Climb High Buzzard work well.

Light weight hiking shoes - These will be used for Part I and for approach to and wear around base camp on Part II.

Socks - Wool or synthetic, (no cotton). Bring six complete changes. It is recommended that you wear a thin liner sock and one or two pair of thick socks depending on boot fit. You may want a few pair of lighter synthetic socks for the trek.

Comfortable Walking Shoes - for use around La Paz. These can be the same shoes for the trek. However, the end of the trek can be wet and muddy. You may want to bring another pair to change into and to wear when we go out to dinner in town.

Long Underwear Bottoms and Tops - This will be your base layer and should be lightweight polyester, polypropylene or similar synthetic.

2nd Layer (Top) - Expedition weight long underwear top, 100 weight powerstretch, very light weight fleece, Schoeller, or a lightweight windshirt (i.e. Marmot DriClima) are good examples of this multi-use layer.

2nd Layer (Bottom): Schoeller or nylon fabrics preferred. This will be your action layer for your legs and the layer that you will spend the most time in. This layer should be light, comfortable, durable, quick drying, and provide some protection from wind and water. Black Diamond Alpine Pants, Arcteryx Gamma pants, and Mammut Champ pants are good examples of this layer.

3rd Layer (Top): This will be your action layer and the layer that you spend the most time in. Schoeller or nylon fabrics preferred. Seek out soft jackets that are light, comfortable, durable, quick drying, and provide some protection from wind and water. Lightly insulated is ok but not required. Arcteryx, Moonstone, Marmot, Mammut, and many other companies make soft shell jackets that work well for this layer.

Insulated Jacket - Lightweight down or synthetic in addition to the warm jacket described above. Some good examples of insulating materials are Primaloft, Polarguard 3D or any down jacket/parka. This is different than your outer most waterproof shell jacket.

Shell Layer (Upper): This will be your outermost layer and it needs to be waterproof, breathable, and durable. Two or three-ply Gore-tex or other waterproof breathable materials are required. Your parka needs to have a hood and should be sized to fit over your clothes. Lightweight and compressible layers are ideal but don't sacrifice too much weight for durability. Models like the Arcteryx Beta and Gamma jackets, Marmot Alpinist and Precip, and Patagonia Stretch Armstrong are top of the line.

Shell Layer (Lower): Full side zips recommended for easy on and off over boots and crampons, Make sure they fit over all of your layers when fully dressed. Pants or bibs are acceptable and each have their advantages and disadvantages. Materials should be Gore-tex or other similar water-proof and breathable fabrics. Examples include Marmot Cirrus and Minima pants, Arcteryx Alpha SV bibs and Beta AR Pants, Patagonia Stretch Element and Microburst pants work well.

Liner Gloves - Polypropylene / polyester.

Mid-weight Fleece/Schoeller Gloves - Models like the Outdoor Research Gripper and Black Diamond Dry Tool gloves are good examples of this category of glove.

Modular Gloves - Gloves for mountaineering should be waterproof, dexterous, durable, and appropriately insulated for the temperatures expected while in the mountains. Leather palms are preferred and increase the durability of the glove. Most of your climbing time will be spent in either your poly-pro gloves or these, heavier gloves. There are many modular systems for gloves out there that allow liners to be inter-changed. Models like the Black Diamond Ice and Verglas glove, Patagonia Stretch-Element and Work gloves, and models by Outdoor Research are recommended.

Summit Day Mittens (Part III only - recommended for people who get particularly cold hands) - These are **expedition weight** modular mittens that are synthetic, with a waterproof breathable shell. No coated nylon. Very warm modular mittens, consisting of a matched pair of insulating mitts and waterproof shells, offer the protection you will need high on the mountain. These need to be large enough to allow for liner gloves to be worn underneath.

Shorts - Lightweight runners shorts are best. Often worn over your lightweight long underwear.

T-shirt

Warm Hat - Synthetic is less itchy than wool and dries faster.

Lightweight Balaclava - A balaclava is a hat that can be pulled all the way down over the head to the shoulders. It completely covers the head except for an opening for the face. It provides excellent wind protection for the chin, ears and neck. Thin polypropylene is recommended.

Sun Hat - A baseball cap serves well.

Travel and Town Clothes - We occasionally like to go out to good restaurants while in La Paz. You may want something other than your climbing clothes to wear.

- light cotton or other pants, jeans are fine if they are nice.
- light cotton or other shirt, sweaters are nice. Day time temps are never that high in the winter months.
- footwear other than sneakers or hiking boots (previously mentioned)

CLIMBING GEAR

Ice Axe -55 cm to 70 cm length with standard pick and wrist loop. If your axe doesn't have a wrist loop pre-sewn ones are commercially available or you can bring 6 feet of 9/16 inch tubular webbing and we'll tie it on during the course.

Technical Ice Tool - For part IIB participants only. A 45 - 50 cm hammer. Models such as the Black Diamond Black Prophet or Cobra, Charlet Moser Pulsar or Axar, Grivel Rambo and Machine, work well. Straight or curved shafts can be used, and they must have a pre-sewn or tied leash.

Crampons - Flexible or semi-rigid, get good advice before purchasing crampons. Be sure they fit your boots. Crampons with step-in bindings should be used only with plastic boots or leather boots with soles designed specifically to accept heel and toe bails. Black Diamond's Sabertooth or Grivel's 2F are excellent examples of multipurpose crampons.

Climbing Harness - Should fit over bulky clothing. Adjustable leg loops help in this regard. Consider purchasing a lighter weight harness but one with gear loops. Please do not bring strap-on crampons.

Carabiners - Bring four, two of which should be large, locking, pear shaped (or MÜNTER) biners.

Climbing Helmet - Kayak, bicycle or construction helmets are not acceptable.

Prusiks - Prusiks are specially tied loops of 6mm cord used for crevasse rescue. If you don't have a set of prusiks from a previous AAI course then bring three lengths of 6 mm perlon, 13 feet, 6 feet, and 5 feet. (Pre-cut lengths are available for sale at AAI.)

Belay Device - Bring one if you have one, but you don't have to buy one for the course. If you want to get one, be sure to get advice on choices from the Equipment Department. (ATC's and like devices are recommended over Figure 8's.)

Trekking Poles: At least one required and two are recommended. Even if you don't normally use trekking poles, at least one is necessary to help with balance while carrying heavy packs on mountainous terrain and crossing streams.

MISCELLANEOUS

Passport/Money Pouch

Duffel Bag - Two large and sturdy. Durable coated nylon is best. This duffel will be tied to the back of a llama/burrow multiple times during the program. It is recommended that you have a duffel for gear transport, it is difficult to use a large back pack for this purpose without bending the internal frame. Also make sure you have a second duffel to leave belongings in when out on the trip. We will leave the extra baggage in storage at the hotel.

Small Padlock - To fit through the zip sliders of the duffel to secure belongings.

Sleeping Bag - Down or synthetic, rated to about 15 F for the Remote Bolivia Trek (Part I), and to about 0 F for Mountaineering Instruction and Ascents (Part II and III). To help keep your sleeping bag dry, down bag users should bring an extra large garbage bag with which you can line your sleeping bag stuff sack and use for storage in the tent.

Sleeping Pad - Full length closed cell or Thermarest. If you bring a Thermarest, a good idea is to bring an extra closed cell foam pad. This will give more insulation from the ground, serve as a back-up should the Thermarest get punctured, and protect the Thermarest from being punctured from below (there are many camps where a type of sharp, stiff grass can actually poke through the tent and pop a Thermarest).

Hydration: 3 liters of water capacity are the minimum. Hydration packs or bladders like the Camelback or Platypus with appropriate accessories are recommended. Two water bottles, usually one-quart Nalgene type, are required. Other plastic bottles, similar in nature can work as well.

Special care will have to be taken at higher altitudes and colder temperatures, if using the bladder and tube system, to avoid freezing your drink. There are several types of insulators available and having one of these is a good idea.

Water Bottle Parkas (Optional)- made by Outdoor Research. These are jackets that insulate the bottle from the cold. They can be very nice for cold days climbing.

Large Pack - Large internal frame pack, minimum 5000 cubic inches recommended. An external frame pack is acceptable, however these types of packs do not perform as well when climbing. If you choose to use an external frame pack it will be necessary to bring a small summit pack 1500 - 2000 cubic inches for summit day.

Summit Pack - 1500 to 2000 cu in. for climbing and for use on the trek.

Headlamp - Bring an extra bulb and batteries. Flashlights are not acceptable.

Pocket Knife - Multipurpose tools like the Leatherman Tool are great, Swiss army knives work well also.

Repair Kit - Needle and thread, a small amount of adhesive tape, Thermarest repair kit, 20 to 40 feet of light cord, crampon adjustment tools if your crampons need them.

Personal Medical Kit -

- personal medications
- 10 to 20 assorted Band-aids
- one 1 1/2 inch roll of cloth athletic adhesive tape
- minimum 1/2 square foot moleskin, or bring Spenco Second Skin
- 4 safety pins
- 3 inch Ace bandage
- medicated cough drops such as Halls

The following drugs require a physician's prescription (except Immodium). Be sure to discuss the use and precautions for each drug with your doctor.

Loperamide (Immodium)- For diarrhea.

Insulated Mug

Acetazolamide (Diamox) - For prevention or treatment of Acute Mountain Sickness.

Choose one of the two antibiotics below depending on personal allergies.

- Trimethoprim-Sulfamethoxazole (Bactrim or Septra)
 - Ciprofloxacin (Cipro)
- (We strongly recommend against the use of codeine or the use of sleeping pills at altitude.)

Water Purification - Bring tablets such as Potable Aqua, at least 80 tablets. These are lightest and most efficient. You can also use a pump purifier but bring iodine as a back up for the pump.

Insect Repellent: If bringing bug repellent (recommended for Cascade courses, for use in town on Alaskan courses) look for more concentrated repellent in smaller containers. Make sure the container is backpack worthy. If you use a repellent containing Deet be sure to store it away from any climbing gear and clothing. Deet destroys products made of nylon and will break down webbing, cordage, and rope.

Hand/Foot Warmers: Recommended for people that are susceptible to cold hands and toes. These should be small, disposable type products like the ones made by Grabber Mycoal. **At least six toe-specific foot warmers are required for those planning on wearing leather mountaineering boots!**

Foot Powder: Foot powder is very useful especially on longer trips or for people with sweaty feet. Foot powder can help dry your feet, and promote warmth on cold weather trips. Be mindful of the storage container and make sure it will stand up to the abuse it will be subjected too.

Glacier Glasses - With side shields make sure they are 100% UVA/UVB to protect from snow blindness.

Sunscreen - With a protection factor of at least 16. For the fair an SPF of 20 is better.

Lip Protection - With a protection factor of at least 16. For the fair an SPF of 20 is better.

Personal Toiletries - Bring half a roll of toilet paper or less. We provide TP in the mountains. However, TP is a precious commodity in third world countries. You'll find that having a small personal supply for use while in and around La Paz will be nice.

Garbage Bags - Bring two or three large ones. They serve a large variety of uses.

Stuff Bags - Bring three or four of varying sizes and colors to help keep your gear or food organized.

Camera - With lots of film and an extra battery.

Foam Ear Plugs - Your tent mate may snore.

Favorite Snack Foods - We can get a lot of candy bars, granola bars, dried fruit for hiking and climbing days; however, you may have personal favorites or things that work well for you such as Power Bars, beef jerky, or Guu packets. You will not be able to purchase these specialty items in South America, so please feel free to bring some with you. Around one pound.

Entertainment - Books, games, cards, for stormy days in the tent. Music players like walkmans, mini-disc and MP3 players are popular because the device and media are small and relatively light-weight.

Crazy Creek Chair (Optional)

Purell Hand Sanitizer

Pee Bottle - Sealable

Handiwipes