



2010 Armstrong Scholars Program **EQUIPMENT and CLOTHING INFORMATION**

In addition to the equipment checklist, we believe it is important to provide some more information on choosing the proper gear. Packing too light could leave you cold and miserable, while carrying too much will be a serious burden. Safety and preparedness, for all our participants, is our primary concern. The following descriptions and lists will provide critical information and insight about gear and clothing that you will need for your adventure. If you need further help, your instructors have many years of experience using backpacking equipment; ask them questions!

NatureBridge Provides:

Food, water purification, tents, ground tarps, bear canisters, stoves, fuel, pots, group cooking utensils, maps and compasses, wilderness permits, and first aid equipment.

NatureBridge Can Loan:

Backpacks, sleeping bags, sleeping pads, long underwear, warm fleeces, and raingear

Participants Must Have:

Backpacks, sleeping bag, sleeping pad, eating utensils, hiking boots and clothing.

A complete checklist of required items is enclosed. If cost is an issue, please contact us. We have some gear (see above list) available to loan.

How to Shop For Equipment:

Selecting appropriate gear is a process that can be overwhelming and expensive. Check your current collection of clothing and gear, and only buy or rent what you really need. If possible, borrow from friends or relatives. Keep in mind that you will be in the rugged backcountry; *function* is far more important than *fashion*!

Buying and Renting Gear:

Many participants will come to Yosemite with a combination of purchased, borrowed, and rented gear. You need not buy the most expensive gear to get equipment and clothes that meet your needs. Shop around, ask friends, and find the best deals. Some stores including REI actually sell used gear that is in good condition. Here are some suggestions on where to get outfitted for your trip.

One retail chain with a comprehensive selection is Recreational Equipment Inc. (REI), with outlets throughout the country. REI also rents high quality backpacking gear at reasonable rates. Call for a catalog and location of their nearest store: (800) 426-4840. Or check out www.rei.com and www.reioutlet.com. Also check out www.sierratradingpost.com for discounted outdoor gear.

In the Bay Area, Marmot Mountain Works is an excellent source of equipment and information and they have stores in Berkeley (510) 849-0735.

We suggest that you rely on the expertise of knowledgeable salespeople to make your gear selections, rather than just purchasing items from a mail-order catalog. There is no substitute for actually trying on boots, gear, and clothing!

THE BASICS

Sleeping Bag

Each participant must have a sleeping bag. A mummy style bag with drawstring hood rated **20 degrees or lower** is ideal. A sleeping bag liner can also be used to add to your sleeping bag rating. We prefer bags with synthetic fill (Polarguard, Primaloft, etc.) because, unlike down and flannel, they insulate even when wet. If you already own a down bag, be aware that extra care is required to keep it dry.

Be sure your sleeping bag can be compressed into its own small stuff sack. A stuff sack with sewn-on compression straps is a worthwhile but expensive option.

A bulky, flannel “My Little Pony” bag is perfectly acceptable for the backyard slumber party, but will not suffice for the backpacking portion of this trip.

Backpack:

Your backpack must have sufficient space to carry your clothing, some group gear and food. We recommend you choose a pack with 6,000 to 7,000 cubic inches. Your pack must have well-padded shoulder straps and a thick padded waist belt.

The differences between external and internal frame packs are not nearly as important as solid construction and good fit. We recommend an internal frame pack, but an external frame will also get the job done. Try it on in the store! Load it up with 45 pounds! Walk around!

Sleeping Pad:

These are thin, lightweight mattresses that insulate you from the cold ground. If you can't acquire one, let us know, we can easily provide one on loan.

STAYING DRY AND WARM

In general, Sierra summers are dry. Temperatures can reach the mid 80s during the day, and fall to the 30s and 40s at night. Freak snowstorms and afternoon thunderstorms are always possible.

Warm weather is easy -- just wear shorts and a T-shirt. It is the nighttime and wet days that require a good layering system. Layering involves wearing a few layers of clothing that can be taken on or off as conditions change throughout the day.

Base Layer:

The best base layer to wear next to your skin is light or mid-weight synthetic long underwear; ***this is a requirement!*** You will wear this constantly, so pick a fun color! Don't bring cotton for this layer.

Insulating Layers:

As your primary insulating layer, we suggest a thick fleece jacket or wool sweater. An additional lightweight fleece, wool, or down top or vest is optional. Finally, a warm hat is essential for cold nights!

A note on 'down' jackets: down layers are very compressible, lightweight, and wonderfully warm, but are expensive and *useless* when wet! If you already own down, be sure to have an excellent waterproof layer to protect it, both when you wear it and when it's in your pack.

Waterproof Layer:

Each participant must bring a waterPROOF layer for the upper body. Gore-Tex is a breathable, waterproof material used in most expensive rain gear. A mid-weight Gore-Tex “shell” is ideal (Not a thick insulated jacket). A less expensive nylon shell will work but be sure to buy one that is seam-sealed and fully waterproofed (ie. “coated nylon”). Rain ponchos are your cheapest option, however they tend to shred apart quickly. If you do bring a poncho, invest in the best-coated nylon model available, with metal snaps and sewn seams. Plastic rain gear is also an option, but can break down very fast.

Layers to be left at home

Examples of ineffective layers for a backpacking trip:

- jogging suits (this is your classic porous, unwaterproof nylon)
- Umbro "soccer team" jacket, or a "Starter" logo jacket
- Jeans
- Cotton (besides undies)

TAKING CARE OF YOUR FEET

Hiking Boots/Shoes:

Your feet will thank you if you bring a good pair of hiking boots/shoes. It may be the most important piece of equipment you wear!

It is absolutely critical that you wear a pair of comfortable hiking boots/shoes. It is **not** necessary to purchase a pair of expensive, heavy, all-leather hiking boots! If you already own a pair of all-leather boots that are broken-in to your feet and that you have used before, then that is your best bet. Otherwise, there are a number of good lightweight but supportive boots/shoes that are more comfortable and more affordable than the big heavy leather boots out there. Get professional help but don't let them convince you to buy something too expensive or uncomfortable. When you go to the store try to go in the afternoon when your feet are swollen from walking, this will ensure that you get the best size. You will also want to practice walking up and downhill in the store to see how the boot/shoe feels. We recommend that if you have ever experienced weak or injured ankles that you purchase boots with ankle support.

The perfect boot is lightweight, has a leather or nylon/leather exterior, good padding, a good lug sole and is well broken in.

It is very difficult to fully waterproof boots (water has a way of getting in) but it is helpful if you treat your boots with commercial water repellant to minimize water absorption.

Finally, a brand new boot/shoe (even well-fitted) can cause serious blisters and **ruin** your trip. ***Please, if you buy new boots, make certain they are BROKEN-IN before you arrive...*** Start wearing frequently them ***at least*** a month before you arrive.

Socks:

Some hikers prefer a single thick synthetic/wool blend sock while other use a two-layer system (thin liner with thick outer sock). We strongly recommend that you take some training hikes to both break in your boots and experiment with different sock options.

Do not bring cotton hiking socks.