Mountain Skills Semester

Clothing and gear lists

During the Semester you will have the opportunity to learn about different gear and the proper use of the items. You will probably be much better informed after the course than you are now, hence you will be in a much better position to judge what you need and where to get it. We urge you not to go out and wildly purchase everything on this list but to be creative in securing what you can from friends or relatives. Renting gear that is expensive is a great way of testing before you purchase. We suggest taking the time to talk to your local gear shop and learn as much as possible about items you would like to purchase. Manufacturer’s websites are also a great place to learn about the equipment that you are interested in. Please call or email the Yamnuska office and we will do our best to answer any questions that you have concerning gear selection or sizing.

Your choice of clothing and equipment for the Mountain Skills Semester will play a large role in your enjoyment and success on the program. Some equipment and clothing can be purchased after the start of the course so you have the chance to get direct input from other students and the guides.

The following is a comprehensive list of the items that we recommend. Certain items can be rented if you would prefer and these will be highlighted in red.

Clothing

Layering properly is arguably more important in the mountains than almost anywhere else. Periods of inactivity are followed by times of high physical exertion while climbing and skiing. Weather in the Rockies can be very changeable and there is the potential to see temperature variations between +30C and -30C. Below are our recommendations to keep warm and dry while on the Mountain Skills Semester!

Baselayers

LONG UNDERWEAR (top and bottoms). They should be a heavy weight synthetic such as Capilene or Merino wool. 2 pairs.

SOCKS. They should also be a synthetic/Merino blend. A good quality pair of socks go a long way to preventing blisters! Some people like to use a thin liner sock underneath. 4-6 pairs.

UNDERWEAR. Synthetic or silk. Several pairs.
**Insulating Layers**

MIDWEIGHT FLEECE (top only). Some type of midweight top, whether it is a synthetic Polartec material, or Merino Wool. Bottoms are optional.

MIDWEIGHT PUFFY JACKET. A midweight synthetic jacket or a midweight down jacket make a great layer for warmth.

HEAVYWEIGHT PARKA. This may be the most important item to keep you warm while on the course! The warmest down or synthetic jacket you can find will do the trick; just make sure it is sized big enough to go over top of all your other layers. A down jacket will be more compressible and take up less room in your pack.

INSULATED PANTS. Down or synthetic pants for around camp and the really cold days in the mountains. Full side zippers are very useful as they will allow you to put them on with your boots on. (optional but recommended)

**Outer Layers**

SOFT SHELL (Pants and Jacket). Softshell pieces have the advantage of offering great weather protection, while still being highly breathable. They can be worn for all but the wettest conditions.

WATERPROOF HARDSHELL (Pants and Jacket). When it is very cold, or the conditions are very wet, waterproof/breathable outer layers can be invaluable. Choose something that has a good, helmet compatible hood.

BACKCOUNTRY SKI PANTS. There are many choices for ski pants. Whatever you choose, just make sure that they are not heavily insulated. Insulated pants designed for the ski hill are usually too warm for ski touring. Pant must also fit over a pair of ski boots. Some soft shell pants may be suitable/compatible but you must ensure that they fit over your boots.

**Accessories**

GLOVES. At least 2 pairs. One should be a fitted, lighter weight soft shell material with a leather, or sticky palm. The other pair should be warm and waterproof!

HATS. A warm wool or fleece hat that covers the ears and a light weight balaclava. Either must fit under a helmet! A brimmed hat to protect you from the sun is also important.

GAITERS. In addition to keeping snow and rocks out of your boots, gaiters protect your pants from crampon points and reduce tripping hazard.

INSULATED BOOTIES. Excellent for warm feet around the camp, huts and in your sleeping bag at night.

SHORTS. For those warm weather days.

CLOTHING FOR AROUND TOWN. Bring enough clothing for days off and the course break. They are also nice to use during the car camping sections of the semester.
**Footwear**

RUNNING or APPROACH SHOES. For around town, camp and use on the rock climbing section. 1 pair.

SANDELS. Nice for around town and in camp.

MOUNTAIN BOOTS. This will be the most important piece of equipment for the course. We highly recommend purchasing your own leather boots! They should be minimum of 3/4 shank and be insulated enough for winter use. Take the time and care to insure that you have a comfortable fit before purchasing. Double plastic boots are warm and durable; however, most people prefer using leather boots. Kayland, Koflach, La Sportiva, Lowa, and Scarpa all make good boots. Examples of appropriate boots would be: La Sportiva Nepal Evo or Scarpa Mt Blanc GTX. Wear them as much as possible before the course so that they are broken in.

**We have mountaineering boots for rent (Scarpa Mt Blanc GTX) - let us know as soon as possible if you want to rent**

HIKING BOOTS. A light weight hiking boot. (Not required for the Spring Semester)

ROCK CLIMBING SHOES. Well worth the investment. There are many brands on the market with a broad range of prices. Best to buy a non-specialized shoe. Buy your rock shoe to fit snug but comfortable as you will be wearing them for extended periods.
Equipment

Sleeping and Packs

EXPEDITION BACK PACK. This should be a sturdy, well-constructed pack with between 65 - 70 liter carrying capacity. A simple well-fitting pack is best. Try on the pack and load it with weight (20 Kilos or more) to see how comfortable it will be. The pack should have a wide comfortable hip belt which sits on the top of the hips. Shoulder straps should also be well padded and comfortable. Key words here are comfort, durability and simplicity.

DAY PACK. Used on day hikes, rock, ice and alpine climbs. Should be sturdy and durable with ice axe attachments and large enough to fit all your gear for the day. Size should be about 35 to 40 liters.

SLEEPING BAG. A great deal of time will be spent in your sleeping bag and the majority of this will be in winter conditions. The big question is whether to go with down or synthetic fill in your bag. Both have advantages and disadvantages. Down filled bags are light and compress easily into a small space and the insulation will have a longer life span than a synthetic bag. However, they are more expensive and don’t work well if they get wet. Synthetic bags keep you warm when they are wet but are bulkier and heavier than down. For trips on the semester most people would prefer a down sleeping bag with a gore-tex outer shell. The bag should have a four season rating and a minimum of 2.5 to 3 lbs. of fill with a rating of at least -20c.

SLEEPING PAD. ‘Thera-Rest’ inflatable pad or ‘Ex-ped’ down mat are the standard. Other less expensive options include closed cell foam pads such as polyethylene or Evazote that need to be at the very least 10-15mm thick, however, you will appreciate spending the extra money on an inflatable mat.

STUFF SACKS. Several coated nylon bags with draw string. For carrying and storing your gear. Good to have a few so that you may also store your clothing and extras. One or two that have the ability to compress clothing are a great addition for keeping the volume down for items like extra clothing and your sleeping bag.

TENT. Yamnuska provides tents for the Mountain Skills Semester but you are welcome to bring your personal tent if you would prefer.

Essential Items

HEADLAMP. With spare batteries.

WATER BOTTLE. One liter capacity, plastic or metal with a screw lid. Nalgene and Sigg brand bottles are good. Having an insulated cover helps keep your drinks from freezing but is optional.

THERMOS. 500ml or 1 liter bottle. Stainless steel only.

SPOON. Lexan or titanium spoons work well.

BOWL. Made of unbreakable plastic. A 2 or 3 cup plastic measuring cup works well.

MUG. Insulated plastic mug with a lid is ideal.
POCKET KNIFE. The 'Swiss Army' Knife or 'Leatherman' Tool is best. At a minimum a blade, can opener and screw driver will be useful. You don't need all the gadgets and attachments if price is a limiting factor.

COMPASS. Mirror sighting and the ability to set the declination on your compass is required. Suunto, Brunton and Silva are all recommended brands.

SUN GLASSES. A mandatory item to have as your eyes can burn easily from the intense UV at higher altitudes as well as from the reflection off of the snow. Side shields or glasses that let minimal light in the sides work well. Glasses should cut out 100% of UVA and UVB rays. If you wear prescription glasses make sure you have a good pair of prescription sunglasses for the course. Have a good storage case for your sunglasses to avoid damage.

SKI GOGGLES. Be prepared to spend some money on getting a pair with durable lenses that won't fog up.

NOTEBOOK and PENCIL. We will provide you with a ‘Rite in the Rain’ all weather notebook but you should bring a mechanical pencil for recording notes in the field.

PERSONAL 1ST AID KIT. Band aids, blister tape, moleskin, 2nd Skin etc.

SUNSCREEN. At least 50 SPF rating. Sunburn is a very real and potentially serious hazard on the course.

LIP CREAM. At least 30 SPF.

SMALL REPAIR KIT. Should contain wire, tape, safety pins, - anything which you think may come in handy.

LIGHTERS. 2 or 3 disposable types.

TOILET KIT. Toothbrush, toothpaste, floss, shampoo, foot powder, skin cream, nail clippers...

WATERPROOF WATCH. One with an altimeter is useful but optional.

TREKKING POLE. One trekking pole is an important tool for mountaineering.
**Technical Equipment**

Yamnuska Mountain Adventures will provide the following equipment but feel free to bring items you may have so you can become more familiar with their uses:

GENERAL MOUNTAINEERING ICE AXE. The axe should be between 52cm and 66cm in length and sized according to your height. Yamnuska uses the Petzl Summit axe.

CRAMPONS. They must have an attachment system that fits your boots and anti-snow plates on the bottom. Yamnuska uses the Petzl Vasak for our mountaineering programs and the Petzl Lynx for waterfall ice climbing.

HARNESS. A moderately padded sit harness that is in good repair. We use the Petzl Corax harness which is great for all around use.

HELMET. A comfortable climbing helmet in good condition. We use the Petzl Elios.

BELAY DEVICE. A multi-purpose belay device that can be used to belay the leader, one or two seconds and can be used for rappelling. We supply the Petzl Reverso 4.

PEAR SHAPED LOCKING CARABINER. This is used in conjunction with the belay device. The Petzl Attache is a great carabiner for the job.

D SHAPED LOCKING CARABINERS. (2) We use the Petzl Spirit screw lock.

D SHAPED NON-LOCKING CARABINERS. (2) We use the Petzl Spirit non-locking carabiner.

120cm SEWN SLING.

ICE SCREWS.

TRADITIONAL GEAR.
Skiing and Split Boarding gear

Telemark or Alpine Touring (Randonnee) are the two equipment options available to you. It is recommended that if you are not an intermediate or expert telemarker before the course that you choose Alpine touring equipment. Alpine Touring equipment tends to be equal or lighter in weight while being more durable with better release for safety. If you are in any doubt as to which system to use you MUST consult us.

Telemarking

Suitable for advanced intermediate/expert skiers only

SKIS. We recommend mid-fat to fat skis sold as backcountry or all mountain skis. No longer than 185cm, shorter if you are less than 180cm tall.

BINDINGS. Sturdy telemark bindings with cable. No pin bindings.

TELEMARK BOOTS. Plastic, these need to be sturdy, warm and have good ankle support. Scarpa and Black Diamond make good boots.

SKINS. Stick on climbing skins for skis. Synthetic or mohair. Sized to fit ski.

POLES. Fixed length or Telescoping.

SKI STRAPS. (2) Straps for securing skis together.

Alpine Touring (also referred to as “randonnee” in Europe)

Alpine Touring is backcountry skiing on downhill type skis and ski mountaineering boots. The technique is entirely different from telemark skiing. It is more of the classic downhill style.

SKIS. (1 pair) We recommend mid-fat to fat skis sold as a backcountry or mountain ski. No longer than 185cm, shorter if you are less than 180cm tall. We recommend skis that have a 90-105mm waist/under the foot.

BINDINGS. For a beginner the Fritschi bindings (Free Ride, Diamir etc) are easiest to use. A Tech Binding such as the Dynafit system are the choice of most guides as they are very light but they are more difficult to use. Silveretta also make good bindings.

SKINS. Stick on climbing skins for skis. Synthetic or mohair. Sized to fit ski.

POLES. Fixed length or telescoping.

ALPINE TOURING BOOTS. Comfort is the important factor here. Alpine touring boots should have a comfortable walk mode but be stiff enough to provide control for downhill skiing. Scarpa, Black Diamond and Dynafit are examples of high quality brands available. We do not recommend using downhill boots and mountaineering boots are not appropriate for the ski sections.

SKI STRAPS. (2) Straps for securing skis together.
**Snowboards (Split Boards only)**

Snowboarding on the semester will require more effort and skill on your part. You will need a “Split Board” and you MUST be familiar with how to use the skins that come with them and to make fast transitions between up and downhill modes. **We do not recommend using a snowboard if you are an inexperienced boarder.**

SNOWBOARD. Split Board with touring bindings. Prior and Voile make good boards.

SKI POLES. YES! You will need these. Telescoping poles will be necessary.

SKINS. Stick on climbing skins for fitted to your board.

Choosing Telemark, Alpine touring or Split Boarding gear can be difficult. If you are uncertain to the best choice for you, please contact us and we can help you make the decision.

**Optional Winter Equipment**

Yamnuska supplies the following equipment however, if you own any of these items, please bring them to the course so you can get essential practice with your specific gear.

AVALANCHE TRANSCEIVER. Your transceiver must be a triple antenna digital model.

AVALANCHE PROBE. Either aluminum or carbon fiber and a minimum of 240cm in length.

SLOW SAW.

SLOW PROFILE KIT.

AVALANCHE SHOVEL. A collapsible shovel with a metal blade. Voile, G3, Ortovox and Black Diamond all make good shovels.

**Ski and Snowboard Rental Information**

Rentals need to be arranged during the course if on the Fall Semester but need to be arranged before if you are on the Spring Semester.

SKIS, SKI BOOTS, CLIMBING SKINS, POLES and BOARDS can be rented from the following (snowboards are only available from MEC):

Canmore

Gear Up - Offers a Semester Course member discount and is the best option if you have any issues with the equipment as it is easy to exchange. [www.gearupsport.com](http://www.gearupsport.com) or 403 678-1636

Calgary

Mountain Equipment Co-op. [www.mec.ca](http://www.mec.ca) or 403 363-0122

University of Calgary [www.ucalgary.ca/outdoorcentre/rental](http://www.ucalgary.ca/outdoorcentre/rental) or 403 220-5038

You are responsible for arranging and paying for your own rentals. You are also responsible for returning any rentals during or at the end of the course. Please have your gear arranged prior to the spring course. You can arrange rentals during course break on the fall course.
Optional Items

EAR PLUGS. (Recommended)
PERSONAL MUSIC PLAYER.
SMALL GAMES.
BOOKS.
JOURNAL or DIARY.
CAMERA.
UMBRELLA.
BACKPACK COVER.
BATHING SUIT. For use in the Canmore public pool.
STORAGE SPACE WILL BE LIMITED SO CHOOSE AND PACK CAREFULLY.
WINTER BOOTS. Comfortable high-top winter boots for around town. (Optional)

MARK YOUR GEAR!

Please mark all of your personal gear so that it can be easily identified as your own. Mark with permanent ink or with an engraver.

YAMNUSKA RENTAL GEAR

Please contact us as soon as possible if you need to rent the mountaineering and/or rock shoes so that we may reserve them for you.

DAMAGE DEPOSIT FOR YAMNUSKA GEAR

A damage deposit of $300.00 is required from each participant prior to course start. This deposit will be used to repair or replace any gear that is damaged or lost through student misuse or inattention. Normal wear and tear is expected on our equipment and damage deposits will be returned under these circumstances at the end of the semester.