



NEW ZEALAND SKI AND SNOWBOARD MOUNTAINEERING COURSE EQUIPMENT NOTES

Due to the nature of the mountain environment equipment and clothing must be suitable for its intended purpose. It must be light, remain effective when wet or iced and dry easily. It is important that the product will not become redundant before it wears out. These notes will help you make informed choices so you save time and money.

Bring your own clothing and wet weather gear, and if you already have your own equipment that is on the list then we suggest you bring it along as well to learn how to use it best.

As you know, Adventure Consultants is able to offer clients good prices on a range of clothing and equipment and up to date information regarding the range of products available. If you need assistance with making a purchase or making your selection, then please feel free to contact us.

Ski Touring Options

Option One: Touring Skis / Touring Boots / Touring Bindings/ Climbing Skins

Touring Skis

The best touring ski is one that is lightweight, wide and short to allow for good performance in the difficult conditions found off piste. Some general purpose skis such as the Volkl Mantra or K2 Xplorer are suitable, or specific touring skis are also available such as the Atomic Free Dream or Black Diamond Havoc. We recommend that you visit a reputed ski shop to assist you with purchasing the right ski for you.

Touring Bindings

Touring bindings are much lighter than the 'standard' ski binding, and allow free heel lift for uphill touring which then locks down for skiing. The top of the range touring binding is the Fritschi Diamir Series. The 'Eagle' binding is suitable for those who will be mostly touring, and the 'Freeride' binding is an excellent choice for those needing a hardwearing binding for on piste and touring. A Dynafit system is extremely lightweight but can only be used with Dynafit compatible boots. The Marker Duke and Baron bindings are also suitable but are quite heavy in comparison to the Fritschis. Bindings must be fitted with brakes.



Touring Boots

When selecting a touring boot ensure that the hinge is flexible enough to allow for comfortable walking. We recommend Scarpa, Black Diamond or Garmont ski touring boots. It is important to have your boot fitted by a qualified technician, and if you have problems with your feet consider purchasing footbeds as well.

Climbing Skins

Climbing skins are available in different widths, and should be wide enough to cover all but the metal edges of your skis to maximize climbing ability, particularly when traversing hard snow. Keep self-adhesive skins out of the dirt, and store them dry in a sturdy plastic bag to prevent the glue from drying. Fold the ends of each skin to its centre, sticky sides together. Most commonly we use nylon skins which are more durable than other alternatives on the market such as mohair skins.

Option Two - Telemark Skis and Bindings/Telemark Boots/Climbing Skins.

Only use this option if you are already a competent telemark skier! Ensure that your telemark skis are equipped with a runaway leash, and if you are using a cable binding, bring a spare cable with you.



Telemark Boots

Both Scarpa, Garmont and Black Diamond make excellent modern plastic telemark boots. Leather telemark boots are not suitable. Because telemark boots have a toe welt at the front of the boot it is important that you find crampons that will fit – contact us for advice.

Climbing Skins

See Option One above.

Snowboard Touring Options

Option One - Split Board / Climbing Skins - RECOMMENDED


Specifically designed with backcountry touring in mind, the splitboard halves lengthways to allow climbing skins to be attached and travel in touring mode. This eliminates the need for snowshoes and means much faster travel and more runs for the boarder! Your regular snowboard boots are suitable for use with a splitboard but make sure that your crampons are compatible with the boots – contact us for advice. Collapsible ski/walking poles are essential if using this option.

We recommend Voile Backcountry Split Boards and climbing skins.



Option Two - Standard Board /Snowshoes

Bringing your own board is the most economical option for snowboarders, although you will find travel slower once you don your snowshoes compared to those with skis and split boards.

	<p>SNOWSHOES Snowshoes can be hired from Adventure Consultants. If you want your own, the latest models are lightweight with ice-claws for firmer snow conditions. <i>We recommend: MSR Denali Evo Ascent (pictured) or MSR Denali Ascent</i></p> <p>TREKKING POLES A collapsible model with snow baskets for use with your snow shoes. <i>We recommend: Black Diamond and Leki Poles</i></p>
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At Adventure Consultants we are happy to offer you a range of ski and snowboard touring equipment, enquire about our package deals including climbing skins, avalanche transceivers, shovels, probes and snowshoes. Feel free to contact us for advice on what products would best suit you!

We can arrange rental equipment for courses including touring equipment. Please advise us as soon as possible should you be requiring rental.

If you are looking at purchasing skis, boots or need to tune your gear before the course then our local ski shops can assist you in finding the right gear.

Mainly Tramping	Outside Sports	Outside Sports
Dunmore Street	Dunmore St	Shotover Street
Wanaka	Wanaka	Queenstown
www.climbwanaka.co.nz	www.outsidesports.co.nz	www.outsidesports.co.nz

TECHNICAL EQUIPMENT

All of the following hardware items are available for hire from Adventure Consultants if necessary.

HARNESSES

The sit harness type is used for most mountaineering situations. These should be lightweight and adjustable around the waist and legs. A specially designed alpine harness is easier to get in and out of (which is important when nature calls) and they can be put on when you have boots and crampons on. Many rock-climbing harnesses have fixed leg loops and hence cannot be adjusted for different clothing layers. Wear your mountaineering layers when trying on a harness to ensure it fits over the clothing layers. You can use a regular alpine harness which is suitable for all types of mountaineering, or a lightweight ski touring harness such as the Black Diamond Alpine Bod.

We recommend: Petzl Corax or Black Diamond Momentum or Alpine Bod Harnesses

CARABINERS

Bring 2 screw gate carabiners (including one pear shaped) and 3 non-locking carabiners.

We recommend: Petzl, Faders and Black Diamond Carabiners

BELAY DEVICES

You'll need one belay device. We use tubular style units which have two holes for the rope to pass through. They are lightweight, easy to use and are compatible with single or double ropes.

We recommend: Black Diamond ATC-XP or Petzl Verso

PRUSSIC LOOPS

Generally 6mm kermantel cord. You will need 3 of these. They should be tied from a 3.2m length, and two 1.6m lengths. A double or triple fisherman's knot is generally used to join the ends and create the loop. Your Guide can help tie these during the course.

We have prussic cord available for purchase.

SLINGS

Two 120cm sewn or tied lengths are ideal. These can be either sewn slings or buy it by the metre and tie your own knots (also taught during the course if needed).

We have sewn and unsewn sling available for purchase.

ICE AXE

We recommend a lightweight mountaineering ice axe rather than a heavy tool. The axe should be of walking length, roughly 55-65 cm depending on your height. The axe should have a basic wrist leash of some sort.

We recommend the Black Diamond Raven Pro Axe

CRAMPONS

Clip on style with a toe harness is best. Choose a lightweight aluminium model and check the set-up is secure on your ski boots and that the strap is long enough. Snowboarders should contact us for advice on which crampons will fit your boots best.

We recommend Grivel Air Tech Light New-Matic

BACKPACK

There are many models available which are suitable. Your pack should have at least a 65 litre capacity but no more than 100 litres in volume and have an expandable lid & compression straps. Make sure the pack has attachment points for your skis, ice axe, and crampons and a top pocket. A sleeve for your shovel is also useful.

We recommend Black Diamond Quantum 65, The North Face Prophet or Primero 65

Avalanche Rescue Equipment

Winter conditions necessitate these avalanche safety items which we will supply free of charge. However, if you have your own then bring them along so you can learn how best to use your particular model.

Transceivers are used to locate a buried victim in the least amount of time possible. If purchasing a transceiver, look for a digital model that is easy to use. All avalanche transceivers transmit on the same 457kHz frequency and are compatible with all other analogue or digital models.

Avalanche probes are made up of multiple aluminium sections, tensioned by a cable, and extend to form a 2-3m pole for probing avalanche debris.

Your shovel should be a lightweight, avalanche-specific model. Plastic shovels are not recommended. A telescopic handle and a large, metal blade will allow you to move more snow quickly.

We recommend: BCA DTS Tracker transceivers and Black Diamond Shovels and Probes



CLOTHING

Today there is a bewildering and ever changing array of modern technical fabrics and garments on the market. Accordingly, suitable mountain attire can be derived from a wide variety of garments utilized in varying combinations. The clothing on our gear list can be creatively substituted according to your preferences but ensure your choices are functional and adequate. For example, a functional and often utilized garment that does not appear on our list is a vest.

A basic principle in selecting clothing and equipment is to minimize weight and bulk while still ensuring adequate warmth and functionality. It can be difficult to find a brand that has all the features you prefer which means you have to make prudent compromises. In the description below, for certain items, we suggest brands and specific products that we have found to be suitable; this is by no means definitive. You can read Guy Cotter's thoughts on lightweight layering systems at <http://www.adventureconsultants.com/adventure/LightweightGear/>.

There are numerous fabrics, which are both water resistant and breathable such as Gore-Tex, Reflex, Membrane, Entrant etc. These fabrics are expensive but can last for years if well looked after. Shell clothing should be seam sealed during the manufacturing process (tape sealed on the seams) or it will leak through the stitching. It also should be easy to move in and easy to put on and take off when wearing gloves or mitts. Shell clothing made of PVC, or similar totally waterproof but non breathable material, is not suitable as moisture cannot escape when you are exerting energy and you become damp from the inside out! Therefore fabric breathability is very important when you are active in the mountains.

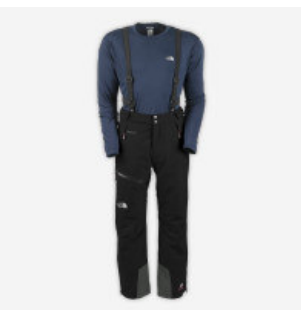
Appropriate fabrics used in thermal underwear include polypropylene, silk and merino wool. The only cotton garment worn during the climb is your glacier shirt. Warmer insulating materials can be made from fleece, softshell or Primaloft®. Varieties of fleece include Windstopper, Wind Pro, Power Shield, Windbloc, Power Dry and Power Stretch. Be aware that fleece garments that incorporate stretch fabric take longer to dry. 'Softshell' garments integrate stretchy nylon fabrics to increase freedom of movement while also providing various degrees of wind and water resistance. They are often lined with a microfleece for increased insulation. Synthetic insulation materials such as Primaloft® are advantageous as they are warm even when damp, are water resistant and quick-drying.



JACKET / WATERPROOF SHELL:

Gore-Tex or similar waterproof breathable material. Look for a model with a full front zipper, a good attached hood with draw cord etc for good adjustability so it will fit over a helmet. Preferably, the jacket should be long enough to allow a generous overlap with your overpants when you bend over. Obviously a technical mountaineering jacket is ideal but many general purpose jackets are sufficient.

We recommend: The North Face Leonidas or Mountain Hardwear Typhoon Jacket



OVERPANTS

Gore-Tex or similar waterproof breathable material. These must have full length zips down the legs so they can be put on and taken off when you are wearing boots and crampons. The bib/salopette types are warmer as they extend above the lower back / kidney area giving a good overlap with your jacket. Make sure they have sufficient movement to enable you to lift your legs high and enough room to wear light fleece pants underneath.

We recommend: The North Face Mountain Pant or Patagonia Rain Shadow Pants

DOWN JACKET

During the colder winter months a good quality down jacket can be a lifesaver! A mid-weight down jacket with a hood is recommended. Although some down jackets have a waterproof and breathable outer fabric, these fabrics are not totally waterproof unless they are seam sealed.

We recommend: The North face Nuptse Jacket or Marmot Ama Dablam Jacket

MIDWEIGHT INSULATED JACKET

This can be a thick fleece (Polartec 200 – 300), insulated soft-shell or Primaloft jacket with a full front zip for ventilation. Zip up pockets help avoid losing items which are stored there. A hood is also a bonus.

We recommend The North face Red Point Optimus jacket, Marmot Power Stretch Full-Zip Fleece, Mountain Hardwear Compressor Insulated Jacket or Patagonia Micro Puff Jacket

LIGHTWEIGHT FLEECE TOP

A micro weight (100 weight) fleece top is a good addition layer to keep your thermoregulation perfected. Wear it as your top layer when warm then put your midweight jacket over it when it gets colder. It can be a light fleece pullover, or have a short - or full zip. A zip chest pocket is useful for keeping sun cream and snack bars accessible.

We recommend: The North Face Vincinte or similar

WARM CLIMBING / FLEECE PANTS

Preferably not too heavy a fabric as they can cause overheating. These can be loose or tight fitting. There are a variety of insulated soft-shell pants available that have water and wind resistant qualities and can be used independently of your Gore-Tex pants in fine weather but do not replace Gore-Tex overpants.

We recommend: Marmot Reactor Pants or Patagonia Alpine Guide Pant

LONG SLEEVE TOP

Long sleeve thermal tops made of polypropylene, merino, silkweight DriClime or polyester are excellent. A high neck with a zip gives good temperature control. Bring at least two tops (one for climbing in and one for wearing in the evenings or to double up if you are really cold).

We recommend The North Face Softwool or Light ¼ Zip or Crew, Marmot Baselayer or Smartwool NTS Long-sleeved tops

LONG-JOHNS

Thermal long-johns made of the same materials as thermal tops are lightweight and provide a change if your fleece pants are wet or too warm. They also provide lots of additional warmth if worn under your fleece pants.

We recommend: The North face Softwool Pant, Marmot Base layer or Smartwool NTS Bottoms



The North Face Nuptse Jacket



The North Face Red Point Optimus Jacket



The North face Vincinte



The North Face Softwool ¼ Zip

UNDERWEAR

Bring sufficient changes of your regular underwear. It is possible to buy polypropylene, silk or merino briefs and singlets, which are warmer and dry faster if you get wet however, most people use their normal, most comfortable underwear.

SOCKS

Have at least two complete sets with you for a trip. Wool or a mix of fibres with good thermal properties is a good choice. Often people wear combinations of thick (wool socks) and thin socks (polypropylene or ski liner socks) rather than just one thick pair. Try your socks out with your boots if possible beforehand.

We recommend: Bridgedale, Smartwool or Icebreaker socks.

HEADWEAR

SUN HAT

Wide brim soft hat or baseball cap with bandana to protect you from the sun.

HAT

Made of wool, windstopper or fleece, it must extend over the ears and should not have a tendency to fly off in a strong wind.

BALACLAVA

A polypropylene, fleece or silk balaclava is necessary.

SUN GLASSES

Preferably the glacier glasses style with side protection, though there are some excellent 'wrap around' styles available now. Light reflecting in from the side can cause lots of damage with the high levels of sunlight in the mountains. The lens should be dark enough to withstand the intense reflection from the snow, and must filter 100% of UV light.

We recommend: Bolle, Julbo and Smith.

SNOW GOGGLES

Otherwise known as ski goggles these are required for stormy conditions. If you wear prescription glasses ensure they fit under your goggles.

We recommend Oakley, Bollé and Smith goggles

SCARF, BANDANA OR BUFF

A fleece or silk neck gaiter, neck warmer or Buff is also a good idea for added warmth or sun protection.

HANDWEAR

SKI / MOUNTAINEERING GLOVES

A warm pair with a wind and water proof shell is essential. We generally use Gore-Tex (or a similar waterproof fabric) gloves with removable fleece liners so the liners can be removed to make drying easier. A good model will also have abrasion resistant palms, shaped fingers.

We recommend: Black Diamond Element or Marmot Randonee Gloves

FLEECE FINGER GLOVES

Bring an additional pair of fleece or windstopper gloves that can be used as spares for your removable liner gloves or doubled up if it is really cold.

We recommend: Black Diamond Heavyweight Gloves or Marmot Powerstretch Gloves

FINGER / LINER GLOVES

A couple of pairs of polypropylene, silk or Driclime base layer gloves.

We recommend: Marmot Midweight Baselayer Glove

CAMPING GEAR AND ACCESSORIES



SLEEPING BAG

A down filled sleeping bag is preferable as they are extremely warm, light and compact. It is a good idea to store your sleeping bag in a dry bag or plastic bag inside a stuff sack, in your pack to avoid it getting wet as down loses its insulating qualities when wet. Bring a bag rated as 4 season or 700g+ down fill (approx. -5 to -10 degrees Celsius).

We recommend: The North face Tundra or Mountain Hardware Phantom



WATER BOTTLE

The wide mouth plastic bottles are good. Camelbak style water bladders are good in theory but can often freeze and are easily punctured. It pays to have sufficient capacity to carry two litres as you dehydrate easily in the dry mountain air. If you like add an insulated flask for hot drinks.

We recommend Nalgene Bottles

HEADLAMP

You will need a good headlamp and don't forget spare batteries.

We recommend: Petzl MYOXP Headlamp

SUN BLOCK

A small bottle or tube of maximum protection sun block. Lip balm (with SPF 15 or higher) is worth carrying in your pocket for application during the day.

We recommend: Piz Buin

TOILET BAG

Bring a small toilet kit - flannel, small towel, some soap, toothpaste, toothbrush and a towel.

FIRST AID KIT

A basic personal first aid kit is necessary. Blister tape, 2nd skin (optional), gauze pads, crepe bandage and painkillers. Also any personal medication required (Please remember to inform your guide if you are on any medication). Store the first aid kit in a waterproof container, a plastic bag inside a stuff sack is often adequate.

DOWN BOOTIES

Down booties or other warm and comfortable footwear for wearing around the hut.

We recommend: Sea to Summit Down Booties

NOTEBOOK & PENCIL

Preferably waterproof paper notebook or wrapped in plastic bags.

TOOL KIT / POCKET KNIFE

The Swiss Army style, Leatherman, or other equivalent.

STUFF SACKS AND PLASTIC BAGS

For keeping your gear organised and dry

We recommend: Sea to Summit Stuff Sacks and Dry Bags

MAP

The relevant map can be bought at our office.

COMPASS

Any compass which is suitable for orienteering will do. Remember that the magnetic declination is different in the Southern Hemisphere so compasses designed for the Northern Hemisphere will stick if you try to use them here.

We recommend: Silva Ranger 3

OPTIONAL EXTRAS**EARPLUGS**

Can be a good idea if sharing a tent with a snorer!

THERMOS FLASK

A small Thermos flask – vacuum insulated bottle for hot drinks, made from stainless steel and about 500ml – 1 litre in capacity.

We recommend Primus C+H Vacuum Bottle

SKI HELMET

A ski helmet can be brought for additional safety, though not recommended for back country skiing.

PERSONAL ENTERTAINMENT

Consider taking an iPod and/or a good book.

Please Check Your Equipment List. There May Be Other Requirements Not Listed Here and please do give us a call if you have any questions as we will be happy to answer them

Contact us

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