

Clothing/Equipment List for Level 4 International Mountain Safety Courses

Snowboarders:

Boots:	Normal riding (soft boots are easier for going uphill)
Board:	Normal but extra straps to attach to rucksack when going uphill or split board
Sticks:	Telescopic poles are best as they can be put in rucksack for descent.
Snowshoes:	The snowshoes should have an integral crampon and a heel lift option. Avoid the North American type distinguished by aluminum tubing running round its length. Check they fit!.

Skiers:

Boots:	Normal downhill, Ski Mountaineering or Telemark.
Skis:	Alpine or Ski Mountaineering skis with touring bindings e.g. Fritschi Diamir , Telemark or pin. (No Adaptors). Bring old skis for early season courses
Poles:	Normal downhill (larger baskets worth considering)
Skins:	Either 'tip fix' or 'tip and tail fix' skins, ensure that the skins are almost as wide as the narrowest part of the ski and shaped to the ski.
Ski Crampons	Otherwise known as 'Harscheissen'. Make sure these fit your ski touring bindings.

If you choose to borrow or hire any equipment for this course, it is your responsibility to ensure that it is 'fit for purpose' and that all adjustments / modifications have been made prior to arriving on the course

Even though a shop hires ski mountaineering equipment, they might not be fully aware of how to adjust the touring bindings. Please ensure that you check the following have been adjusted correctly for you:

- Correct binding size for your boot
- Toe binding height
- Forward pressure
- Front and rear DIN settings

Check to see that the skins provided are sticky (they should be difficult to separate in a warm shop environment) and are the correct width/length for the ski being used.

If you are borrowing skins from a friend check that the wire bale at the tip of the skin fits over the tip of your ski.

All equipment, whether owned, hired or borrowed must be collected and ready to use at 9am on the morning of your course.

Everyone:

Avalanche Transceiver:	They must operate on the 457 kHz frequency.
Rucksack:	40 litre capacity with side straps to aid carrying skis or board.
Clothes:	Normal winter clothing used by a snowsports instructor; a versatile layering system is very useful.
Altimeter:	Optional, but very useful, reading in metres.
Compass:	Silva Type 4/54 in 360 degrees (or similar) these are easier to source in the UK
Probe:	Probes come as separate items and should be minimum length 2m 40cm
Shovel:	Metal ones are best and shovels with long shafts are easier to work with
Map Case:	An 'Ortlieb' map case is recommended or a map that is laminated. Laminated maps can be purchased from 'Aqua 3' www.aqua3.com
Basic 1st Aid Kit:	Make sure you can deal with blisters, headaches & minor injuries yourself
Sun Protection:	Cream, lip protection, peaked hat, glasses / goggles
Water Bottle/Flask:	Camel back systems are OK as long as you can stop them freezing up.
Repair Kit:	Materials to deal with • Skins not sticking to skis (spray on glue or duct tape) • Skins icing up (wax, either spray or rub on) • Tip and tail fix breakages • Adjusting bindings Binding breakages (long straps with buckles, wire, cable ties)
Group Shelter:	A group shelter capable of housing 4 people or polythene bivvi bag
Paper & Pencil:	For use on the mountain and in the classroom
Watch/Altimeter:	Essential tool for navigation. The one on your phone may not be suitable as you need to be able to operate it with gloves and have enough battery.
Karabiner:	HMS Karabiner
Plastic Card:	A credit card, snow crystal card or metal ski base scraper, to help identify different layers in the snowpack.

Maps:

Tignes:	Map numer 3633 ET, Top25, named Tignes, Val D'isere, Haute Maurienne
Chamonix:	Map number 3630 OT, TOP 25, named Chamonix Massif du Mont Blanc
Courchevel:	Map number 3534 OT, TOP 25 named Les Trois Vallees
Hintertux:	Map Number 35/1 Alpenvereinskarte, Zillertaler Alpen West 1:25,000
La Grave:	Map number, 3435ET(Valloire) and 3436ET(Meije, Pelvioux) TOP 25.
Verbier:	Map numbers 1326(Rosablanche) and 1325(Sembrancher) 1:25,000
Zermatt:	Map number 2515 Landeskarte Der Schweiz Zermatt/Gornegrat
Leukerbad:	Map number 1267 Swiss Topo 1:25000 national map 1267 Gemmi (or Swiss Topo 1:50000 263S Wildstrubel, Snowsports map)
Areches	Map number 3532 OT, TOP 25 Beaufortain, IGN 1:25,000 3532OT

Additional Recommended Learning

Books and Video

- Avalanche Safety for Skiers and Climbers by Tony Daffern ISBN 0-906371-26-0.
- The Avalanche Handbook by David McLung and Peter Schaerer ISBN 0-898863-643.
- Avalanche by Robert Bolognesi (Cicerone ISBN-13 978 185284 473 8)
- Avalanche and off piste safety DVD (avalancheawareness.co.uk)
- Off Piste Essentials DVD by the BMC ISBN- 978-090390813-9
- Staying alive in avalanche terrain by Bruce Tremper ISBN 978-1-59485-084-4
- Snow Sense – Jill Fredston and Doug Fesler ISBN 0-9643994-0-7
- Weather for hillwalkers and climbers – Malcolm Thomas ISBN 0-7509-1080-1
- Hypothermia frostbite and other cold injuries – Wilkerson, Bangs and Hayward ISBN – 0-89886-024-5
- Mountaincraft and Leadership by Eric Langmuir ISBN 1-85060-295-6
- Mountain Navigation – Peter Cliff ISBN 1-871890-55-1

Off Piste and Ski Touring Guide Books

with very useful safety guidance, produced by Vamos www.editionsvamos.com

- Val D'Isere-Tignes Off Piste by Jean-Luc Steiger & Guy Bonnevie ISBN 2-910672-10-7 Chamonix Off piste by Francois Burnier & Dominique Potard ISBN 2-910672-10-7 Mont Blanc Ski tours by Eric Delaperriere & Franck Gentilini ISBN 2-910672-08-5
- Les 3 Vallees Off Piste by Philippe Baud & Benoit Loucel ISBN 2-9106723-12-3
- L'Alpe d'Huez, Les 2 Alpes, La Grave Off Piste by Francis Ginet & Fabrice Villaret ISBN 2-9503673-6-4

Off Piste / Touring

- Off Piste by Wayne Watson ISBN 1-873668-04-X
- Alpine Ski Mountaineering Vol. 1 Western Alps by Bill O'Connor ISBN 1-85284-373
- Alpine Ski Mountaineering Vol. 2 Central & Eastern Alps by Bill O'Connor ISBN 1-85284-374 8
- Ski Touring: For off-piste, back country, ski tourers and ski mountaineers by Bruce Goodlad ISBN 978-1-906095-47-5