

Clothing/Equipment List for Level 4 EMS Courses

Skiers:

Boots.....	Ski Mountaineering or Telemark.
Skis.....	Alpine or Ski Mountaineering skis with touring bindings e.g. Fritschi Diamir or Telemark skis.
Sticks.....	Normal downhill (larger baskets worth considering) or sticks that screw together to make an avalanche probe.
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. Skins can either be parallel sided or shaped to the ski.
Ski Crampons.....	Otherwise known as 'Harscheissen'. Make sure these fit your ski touring or telemark 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)
- The correct width/length for the ski being used.
- The wire bale at the tip of the skin fits over the tip of your ski.

Snowboarders:

Boots.....	Normal riding (soft boots are easier for going uphill)
Board.....	Normal but extra straps to attach to rucksack when going uphill
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 aluminium tubing running round its length. Check they fit!

Everyone:

Avalanche Transceiver	They must operate on the 457 kHz frequency.
Probe	Probes come as separate items or as part of a package with a shovel or as ski sticks that convert into probes
Shovel	Metal ones are best. Some shovels come with a probe neatly fitted inside the shaft of the shovel, but shovels with long shafts are easier to work with
Rucksack	Approx 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.
Compass	Silva Type 4/54 in 360 degrees (or similar) these are easier to source in the UK
Altimeter	Reading in meters
Map	<p>Areches Map Number 3532OT (R if possible)</p> <p>La Grave Map number, 3435ET(Valloire) and 3436ET(Meije, Pelvioux) TOP 25.</p> <p>Chamonix Map number 3630 OT, TOP 25, named Chamonix Massif du Mont Blan</p> <p>Courchevel Map number 3534 OT, TOP 25 named Les Trois Vallees</p> <p>Verbier Map numbers 1326(Rosablanch) and 1325(Sembrancher) 1:25,000</p> <p>Zermatt Map number 2515 Landeskarte Der Schweiz Zermatt/Gornegrat</p> <p>Hintertux Map Number 35/1 Alpenvereinskarte, Zillertaler Alpen West 1:25,000</p>
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
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.
Rope	30 metres of 8mm
Sling and Krab	16' Sling and Two HMS Krab
Repair Kit	Materials to deal with <ul style="list-style-type: none"> • 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

Additional Recommended Reading

Books and videos

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

Mountaineering 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



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