



DIPLOMA IN MOUNTAIN MEDICINE

Many countries offer regular courses in mountain medicine. The medical commissions (Medcom) of UIAA and ICAR, together with the International Society for Mountain Medicine (ISMM) established minimal requirements for these courses in August 1997 (Interlaken, Switzerland). Many course organizers adopted these standards and the Diploma in Mountain Medicine (DiMM) has become a widely respected qualification. The regulations have been updated to reflect developments in mountain medicine, internet communications and to ensure that the high standard of the DiMM is maintained. The member organizations approved the changes in the regulations on the 8th of August 2010 at a joint meeting in Arequipa, Peru.

Organisers of mountain medicine courses can apply to endorse their courses with the labels of UIAA Medcom, ICAR Medcom and ISMM by sending a standard application form and the course programme to Dr David Hillebrandt (dh@hillebrandt.org.uk) or John Ellerton (ellerton@enterprise.net). Applications are to be English and a separate form is required for specialty modules. New course organisers are encouraged to discuss with, and/or invite, members of the UIAA Medcom, ICAR Medcom and ISMM to observe their courses. For new courses, approval is for two years. When a course reapplies for approved, the organiser must provide information on the number of successful and unsuccessful candidates during the previous period. Re-approval is for four years. The names of approved courses, their geographic location, main language and contact email address will be posted on the member organisations' websites.

Courses can be organised for medical doctors (including medical students near graduation) and/or registered nurses or paramedics. Participants should be interested and/or experienced in mountaineering, and have current (< 5 years) training in basic life support. The course can be divided into different parts appropriate for the organizing country (e.g. summer, winter; basic, specialty etc.) but must include the *common course* syllabus to award a diploma. This must have a minimal study time (lectures, workshops and practical work) of 100 hours. Course organisers can determine who can attend the course and the speciality offered. In addition, course organisers may seek University status for the course. All courses should have some form of valid theory assessment and demonstration of practical skill with a fail potential. Candidates should be encouraged to complete and maintain a logbook to demonstrate continuing professional development. Appendix 1 outlines the level of mountaineering skill required. On successful completion, the course organiser can award the following qualifications:

Type of student	Course	Qualification
Medically qualified doctor	Common course	UIAA/ICAR/ISMM Diploma in Mountain Medicine
Medically qualified doctor registered in their country of origin to practise emergency medicine	Common course & rescue speciality course	UIAA/ICAR/ISMM Diploma in Mountain Medicine and title 'Mountain Emergency Doctor'
Nurse or paramedic	Common course	UIAA/ICAR/ISMM Certificate in Mountain Medicine
Nurse or paramedic registered in their country of origin to practise emergency medicine	Common course & rescue speciality course	UIAA/ICAR/ISMM Certificate in Mountain Medicine and title 'Mountain Emergency nurse or paramedic'

Administrative team

The administrative team is made up of representatives elected by the member organisations and their respective presidents. The minimum number of persons is three. It will conduct its work by email and be accountable to the member organisations. A representative with a *conflict of interest* must inform other members of the team of the conflict. Decisions are made by consensus. The administrative team does not have the authority to alter the regulations. Its role is to approve courses by assessing the curriculum and assessment methods, and to keep a record of courses (so that enquiries can be directed to course organisers). The current team are: David Hillebrandt, Urs Hefti (urshefti@bluewin.ch) and Buddha Basnyat (rishibas@wlink.com.np) for the UIAA Medcom; Fidel Elsensohn (fidel.elsensohn@aon.at), John Ellerton and Bruce Brink (avadog@telus.net)/David Watson (heliotrupe3@shaw.ca) for ICAR Medcom; and Martijn Groenendijk (dijkl@hotmail.com) and Marco Maggiorini (klinmax@usz.uzh.ch) for ISMM.

Curricula

COMMON COURSE IN MOUNTAIN MEDICINE

Basics of:	Minimal time requirements (hrs)	Instructors	Training:
Altitude	6	high altitude experienced doctor	theory
Hypothermia	4	experienced doctor	theory + practical
Avalanche risk assessment, companion search, and medical management of victims	4	experienced doctor + mountain guide or experienced avalanche worker/ski patroller	theory + practical
Frostbite	2	experienced doctor	theory
Submersion and immersion in water	1	experienced doctor	theory
Heat and solar radiation	1	experienced doctor	theory
Children and mountains	1	experienced doctor (paediatrician)	theory
Practical traumatology	4	experienced doctor	workshop
Weather	1	mountain guide or meteorologist	theory
Improvised rescue techniques (introduction)	1	experienced mountain rescue doctor, team member and/or mountain guide	theory
Improvised rescue techniques (practical)	2	experienced mountain rescue doctor, team member and/or mountain guide	practical
Mountaineering techniques in summer and winter, and personal mountaineering equipment (see Appendix 1)	18	qualified mountain guides	practical
Navigation and survival techniques in hostile weather in the mountains	8	mountain guide	workshop + practical
Information about:			
Nutrition, fluid balance and exhaustion	1	experienced doctor or nutritionist	theory
Exercise physiology	1	physiologist or experienced doctor	theory
Travel Medicine	1	experienced doctor	theory
Personal first aid kit	1	experienced doctor	theory
Legal aspects	0.5	experienced lawyer or doctor with medico legal experience	theory
Stress management	1	experienced doctor	theory
Pre-existing clinical conditions	3	experienced doctor	theory
Analgesia in the field	1	experienced doctor	theory
International mountaineering	0.5		theory

organizations			
Organized rescue	2	experienced mountain rescuer	Theory + workshop
Additional subjects selected by the course organizer	35		theory, workshop + practical
	Total: 100 hrs		

SPECIALTY COURSE: EXPEDITION AND WILDERNESS MEDICINE

This course is designed for persons going on treks and expeditions with the anticipation that they will be providing medical support.

Basics of:	Minimal time requirements (hrs)	Instructors	Training:
Altitude	4	experienced expedition doctor	theory and workshop
Cold	3	experienced expedition doctor	theory and workshop
Travel Medicine	4	doctor specialized in tropical or travel medicine, or experienced doctor	theory
Traumatology	4	experienced expedition doctor	workshop
Improvised rescue techniques	4	experienced expedition doctor or IFMGA guide	workshop
Survival techniques in high altitude and personal equipment for high altitude mountaineering	10	mountain guide experienced in high altitude climbing	workshop and practical
Expedition medical kit	1	experienced expedition doctor	workshop
Team building	2	experienced team leader	workshop
Common expedition problems	8	experienced expedition doctor or leader	workshop
	Total 40hrs		

SPECIALTY COURSE: RESCUE

This course is designed for doctors (and if the course organiser wishes, registered nurses and paramedics) who are (or becoming) members of an organised rescue system. They should have been trained in Advanced Life Support and be experienced in mountaineering to an appropriate standard. Curriculum A focuses on medical aspects of terrestrial mountain rescue and is the prerequisite for the attainment of the Diploma. The Add-on Module 'Air Rescue' (Curriculum B) is recommended for air rescue operations in mountainous terrain and should at least attain the minimum standards and regulations of the region or nation.

Curriculum A (Terrestrial Mountain Rescue)

Basics of:	Minimal time requirements (hrs)	Instructors	Training:
Rescue techniques in organised rescues	19	qualified, experienced mountain guides and rescue doctors	theory + workshop + practical
Helicopter rescue techniques	6	experienced helicopter persons	theory
Mountain rescue in airborne sports	2	experienced mountain rescue doctor	theory + workshop
Canyoning rescue	2	experienced doctor and canyon guide	theory + workshop + practical
Hypothermia, avalanches and	8	experienced doctor and	theory + workshop +

frostbite		mountain guide or experienced ski patroller	practical
Cave rescues	2	experienced caving doctor	theory + workshop
Risk management	1	experienced doctor	theory
Mountaineering skills (see Appendix 1)	10	qualified and experienced mountain guides	practical
	Total 50 hrs		

Curriculum B (Air Rescue)

Basics of:	Minimal time requirements (hrs)	Instructors	Training:
Helicopter rescue	16	experienced helicopter persons and air rescue doctors	theory + practical
	Total 16 hrs		

This document was originally produced by Urs Wiget and Bruno Durrer (January 1998); it subsequently revised by David Hillebrandt (DH) (April 2004), DH and John Ellerton (September 2007 and June 2010)

Appendix 1 - Minimum mountaineering skills

Please note these are minimum standards; many courses will expect their candidates to achieve a higher mountaineering standard.

A) Common course

- Summer: Knots and their uses: Fishermen's knot, figure of eight, Prusik, clove hitch, Munter (Italian) hitch; tying into a harness; creating an anchor system; belaying; abseiling with descender and prusik; ascent of fixed rope with prusiks; ability to follow on a UIAA grade 3 climb: preparing a landing site for helicopter evacuation; ground-to-air hand signals.
- Winter: Glacier travel and walking on ice with crampons; belaying by using a variety of techniques suited to snow and ice; climbing grade WI (Winter Ice) 2; improvised crevasse rescue including simple pulley systems; locating a buried avalanche victim using a transceiver and probes, extracting the victim and preparing for rescue.

B) Specialty Rescue module

As above plus the following:

- Risk assessment of mounting an organised rescue
- Summer: additional knots and their uses; pulley and hoist systems; extracting an patient from steep terrain; rock climbing - leading UIAA grade II/III and following UIAA IV with doctor's rucksac.
- Canyoning: additional knots (figure of nine, releasable rope attachments); safety in canyoning; information about swimming techniques in swift water, abseiling techniques with fixed and releasable systems and tyrolienne techniques.
- Winter: safe off-piste skiing; successful search of a buried person by using a transceiver within 3 min; successful probing and efficient extrication of a buried person; glacier travel; crevasse rescue in improvised and organised rescue situations; belaying by using ice-screws and the construction of an Abalokov/V-thread; walking on ice with crampons; climbing grade WI (Winter Ice) 2/3
- Helicopter: Helicopter operations and rescue techniques appropriate to country; Helicopter ground to air communications; preparing a patient in a rescue bag for winch operation.

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