A specialist who knows how to deal with the expedition guide and participants, assessing correctly their skills and physical fitness, and comparing them to the expedition field. This role was already done in part, by Master in Mountain Medicine, but now we want to create a figure with greater specialization and experience and high academic preparation of theoretical and technical level. This is achieved by combining the expertise and experience of the previous course of the University of Insubria, the skills of Air Zermatt Training Center, those of the Austro Course and Mountain Medicine at the University of New Mexico, and those of medical staff and guides in the Denali Park in Alaska.

A course so comprehensive and complex in its development, does not exist at the time in the world. The new Master Course, which takes largely theoretical part of the Master in Mountain Medicine and Master in Mountain Emergency Medicine, provides trips and practical training on the field among others, in Zermatt at altitude below the Matterhorn, in the Grand Canyon, in Arizona and in New Mexico, in the Denali Park in Alaska, Chamonix, with weekly schedule distributed over two years.

The comparison with mountain guides great experience and professionalism, with renowned mountaineers, with alpinist doctors as Oswald Oelz or Tom Hornbein, will complete the educational path, after which there will be a similar assessment to the other masters with the possibility, questions, the presentation of a thesis, and an assessment of skills and attitudes in the field, to create a professional profile able to better manage expeditions or groups of climbers all over the world.

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There is a maximum number of 10 places available and the course is approved by the following institutions: Università degli Studi di Insubria, EUSA-MAE and UIAA. The academic program is of a total number of 1,624 hours as academic regulations, 904 among lectures, internships and on-site practical training.

Lectures and practical training will be held, among others, at the University of Insubria in Varese, at the EURAC headquarters of the Institute of Mountain Medicine and Emergency in Bolzano, at Fresenius, Chamonix, University of New Mexico/Grand Canyon, Air Zermatt Training Center, University of Grenoble, University of Insubria, University of Granada.

Following completion of the course, a formal academic ceremony will be held, where each student will receive a graduation certificate recognized worldwide. To obtain the graduation certificate and each contribution will be present in full in the academic training. A final course examination, consists in a multiple answer test, a practical evaluation on the field and the thesis presentation previously arranged.

TUTION FEE
The enrolment fee for the course is Euro 7.000,00. The fee includes:

- Tuition Fee
- 5% of lessons and medical devices
- The official course language is English.

Director: Lorenzo Dominioni
Co-Directors/Coordinators:
Luigi Festi - Hermann Brugger and Darryl Macias

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OFFICIAL LANGUAGE
The official course language is English.
Module 1
- Basis, Diagnosis, Treatment of Altitude Sickness
  - Altitude sickness
  - Children and the mountain
  - High altitude training
  - The medical practice of mountain
  - The elderly and the mountain
  - Cardiovascular patients and mountaineering
  - Pulmonary failure and mountaineering
  - Neurological disease and the mountain
  - The woman and the mountain

Module 2
- Hyperthermia: Diagnosis and Treatment
  - Hyperthermia
  - Frostbite
  - Sunstroke, heatstroke
  - Nibitons on personal technical
  - Equipment and apparel
  - Diving medicine

Module 3
- Trauma in Mountaineering: Diagnosis and Treatment
  - Anaesthesia on the field
  - Abdominal traumatology
  - Thoracic traumatology
  - Orthopedic trauma
  - Basic radiology
  - Interventional radiology
  - Vascular trauma
  - Neurosurgical trauma
  - Maxillofacial trauma in mountaineering
  - Emergencies odonto-stomatology
  - Tracheostomy
  - Stab
  - Septic diagnosis and treatment

Module 4
- Emergency Rescue in Mountaineering
  - Avalanche
  - Electric short, lightning
  - Mountain rescue techniques
  - Helicopter rescue techniques
  - Holitons on personal equipment
  - Stress management in mountaineering
  - Organized rescue on the mountain
  - The intensive care unit and alpine trauma
  - Alpine trauma and rescue services
  - Helicopter Rescue Team (c/o Air Zermatt, REGA)

Module 5
- The Doctor and Alpine Medicine Practice
  - Introduction
  - Mountaineering techniques and basics of skimountaineering
  - Basics of climbing techniques
  - Mountain rescue techniques

Module 6
- The Doctor and the Mountain 36 hours
  - Decompression sickness
  - Survival and navigation techniques
  - Nutrition in mountaineering
  - Travel medicine
  - The doctor on expeditions
  - Medical legal aspects in mountaineering
  - Legal aspects
  - International mountaineering organisation
  - Medical communication
  - Geological characteristics and rescue techniques
  - Risk management
  - Meteorology and mountain
  - Diving in mountaineering
  - Historical and cultural aspects of mountaineering

Program Winter
- Basics on survival techniques, protection of the patient against further harm, self protection, bivouac....
- Glacier travel, belaying in ice and snow
- Organized crevasse rescue, trmathrm and blood, crevase container, ice hammer.
- Conrade aid and organized rescue in avalanche accidents, transceiver search, helicopter search, Recco, Shovelling probing, ARS-Pack and other systems against burial, medical aspects of avalanche accidents, preparation in avalanche victims.
- Working with the helicopter in winter conditions
  - Management of a mountain casualties, during winter season. In cold and snow conditions,

Chamonix - Fremmont
Place : FREMONT Chamonix
- Theoretical lesson : rescue and resuscitation in austere environment - Presentation of few rescue places in Europe France - Italie - Suisse - Tchéquie - Catalogne
- Anaesthesia and resuscitation in austere environment
Place : Annecy Dropping Zone (Base Meythet - Annecy)
- Simulation rescue + Simulation of EC45 and Dropping Zone
  - Simulation exercise with a simulator EC 145 (ECAC) Victim management - Boarding, winch and landing Workshop with virtual trauma cases
Personal material : mountain clothing, mountain or ski shoes, harness, helmet, gloves,
Place : Parmelan Massif (closes from Annecy)
- Workshop : crevase extraction, management, treatment and evacuation of the victim by EC 145
Place : Courmayeur (Italie) Refuge Cai (Leteg N bet)
- Workshop : rescue without helicopter, self rescue
DSA : rescue in avalanche, management of victim on the field with using sledge

DENIAI PARK - ALASKA
1: Kahitna
Utilize the Kahitna Base camp area. Likely set up camping in a bit up glacier from the main camp. Demonstrate / instruct the points of camp set up on a glacier (crevasse probing, safe tent sites, hygiene, cooking, etc).
Patient bag, vacuum mattress, stretcher, horizontal net,
- Training on improvised rescue techniques
- Rescue on via ferrata
- Suspension trauma, rescue in lights sports
- Working with helicopters... hovering ... introduction to HEC (human external cargo), ... procedures on longline, load transfer system

10 hours *
- Lectures on important topics will be presented in some cases

MEDICAL TRAINING
10 hours
Clinic Mountain Medicine
C/o Ospedale U. Pertini Aosta/ Chamonix
20 hours
Cardiology
C/o Istituto Auxologico Italiano, Università Bicocca Milano
40 hours *
Emergency Department
C/o Ospedale Niguarda-Cà Granda Milano