

ENJOY THE COLD

Adaption to work and outdoor activities
in cold environments: 79°N

Ny-Ålesund, Spitsbergen, Norway

March 31st – April 7th, 2011



NTNU

Norwegian University of
Science and Technology



THELMA

Aim of the course

Working and surviving in cold environments like the Arctic is of increasing commercial, scientific and recreational importance. This results in the need for proper training and equipment for managing the challenges in this environment.

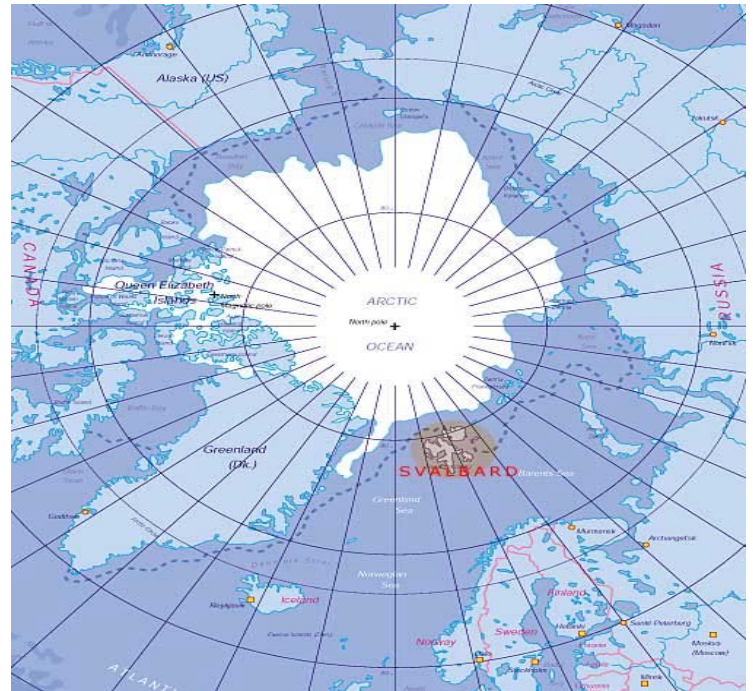
This course is mainly aimed at people who are working and participating in activities related to cold environments, such as:

- ✓ Leadership and management.
- ✓ Maintenance and testing of equipment.
- ✓ Development and production of equipment.
- ✓ Medicine and physiology, including accident management and cold injuries.
- ✓ Military service or other professions that spends extended time outdoors.
- ✓ Expeditions.

Through a combination of lectures, discussions, practical work and use of equipment, the participants will gain an intimate knowledge, how to handle work situations as well as accidents. A wide variety of equipment will be available for actual use.

Location

The course will be held at Ny Ålesund, located on Spitsbergen, the largest island of the Svalbard Group, at 78°N. This settlement is a permanent international research station, only accessible with special permits. Originally a mining town, where many famous polar explorers have started their expeditions for the North Pole (Amundsen, Nobile, Elsworth), this station now performs important biological, astrophysical and meteorological research. The station is accessible using boats in summer and by small plane from Longyearbyen in winter. There is regular air service from Tromsø in Norway to Longyearbyen. In March/April, the average temperature is -15°C .



Course content

- ✓ The arctic environment
- ✓ Cold injuries and hypothermia
- ✓ Influence of cold on work performance
- ✓ Nutritional requirements in the arctic
- ✓ Clothing for the cold
- ✓ Product testing of equipment for the arctic environment
- ✓ Hygiene and prevention of injuries
- ✓ Selection of personnel for arctic conditions
- ✓ Accidents, treatment and transport
- ✓ The use and care of snow scooters
- ✓ The use and care of skiing equipment
- ✓ Camping in the arctic
- ✓ Hazards, how to prevent and survive them
- ✓ Navigation
- ✓ How to face a polar bear



Course directors and organization

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Svein Erik Gaustad, MSc, PhD student Environmental Physiology and Physiological Genomics, Norwegian University of Science and Technology, Trondheim, Norway.

Andreas Møllerlækken, PhD Medical Technology. Post doc Environmental Physiology, Norwegian University of Science and Technology, Trondheim, Norway.

Johan Skullman, MSc (Sports). Survival instructor and former officer in the Swedish Armed Forces.

Torkjel Tveita, MD, PhD. Professor in Hypothermia and chief physician of anaesthesiology, University Hospital of Northern Norway, Tromsø.

Bård Holand, MSc (Engineering). Professor of Cybernetics, Norwegian University of Science and Technology, Trondheim Norway. Senior Engineer Thelma AS

Approximately 150 individuals have participated in previous courses. The participants have included - among others - medical doctors, military personnel, expeditions leaders, mountain climbers, equipment and clothing manufacturers, testers of equipment for the arctic, and safety managers. One of the participants wrote:

"The course was invaluable as it gave a good practical insight into problems encountered in a cold environment. There was a good mixture of theoretical and practical work, allowing us to put into practice what we learnt in the classroom. The three day expedition into the wilderness was a great success, something that should definitely be included in future courses"

The course is jointly organized by the Department of Circulation and Medical Imaging, Medical Faculty, Norwegian University of Science and Technology and Thelma AS, Trondheim, Norway

COST

Cost: 39 500 NOK

This covers all travel and subsistence from Longyearbyen, rent of snow scooters, all necessary equipment, as well as course material. There is a weight limit on the plane from Longyearbyen to Ny Ålesund. Additional weight will be charged at 30 NOK/kg per flight.

Deadline for registration is February 15th 2011. Registration is not valid until course fee has been paid. Please note that the number of participants is limited.

For further information:

Please visit: www.ntnu.no/diving

