



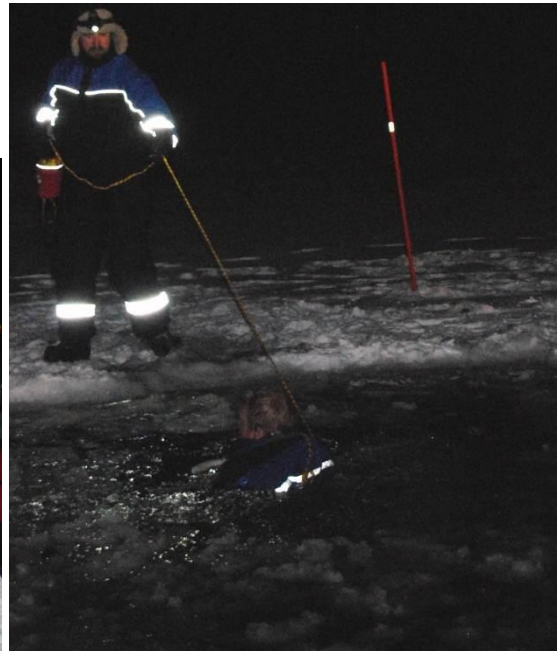
**UNIS**

The University Centre in Svalbard

# WINTER FIELD SAFETY COURSE

7. – 12. January 2019

## PROGRAM



### **1. Purpose.**

UNIS wants all students and staff to have basic knowledge, skills and attitudes when it comes to planning and accomplishing field work and private outings under arctic conditions.

### **2. Primary objective**

To avoid accidents or close accidents during field work by giving students and staff a thorough knowledge of the different risk scenarios they could encounter in the arctic nature.

### **3. Secondary goals.**

After completing the course, the students should be able to:

- Choose the correct clothing and equipment for field work under all weather and working conditions.
- Be able to collect sufficient information and guidance related in the process of planning of their fieldwork.
- Have basic knowledge of the environmental legislation regarding fieldwork and private outings on Svalbard.
- Perform preventive measures regarding personal injury and be able to perform life saving first aid.
- Behave correctly and avoid conflicts when meeting possibly dangerous wildlife, such as polar bears and walrus.
- Use a rifle and pyrotechnical deterrents in a safe way to scare of ,or if necessary, kill a polar bear.
- Use VHF radios, Iridium satellite phones and emergency beacons correctly.
- Use of map, compass and GPS for navigation.
- Use the UNIS safety kits (glacier kit and camp kit) at the right time and in a correct way.
- Use and maintain snow scooters in a correct way.
- Travel safe over glaciers and perform buddy rescue in a glacier accident.
- Detect avalanche prone terrain and understand what weather conditions that lead to an increased danger of avalanches.
- Travel safe on sea ice and master buddy rescue on sea ice. (Someone falling through the ice).
- Use searching techniques and equipment to perform buddy rescue in an avalanche accident.

Please see lesson descriptions for more detailed content and secondary goals of each lesson.

### **4. Students level**

Knowledge standards and skills will vary from students that have long experience from the arctic region, to students who has yet not seen snow. The working language is English during the whole course.

### **5. Execution plan**

The course lasts for 6 days, starting Monday 7.01.19 at 11:00 and ending Saturday 12.01.19 at 17:00.

Snow scooter training is not a part of this week long course and will be accomplished later in the season, with one day training for all new students and staff.

Instructors will mainly come from the UNIS Section for Operations and Field Safety, but there will also be instructors from other institutions.

Fred S. Hansen, UNIS, is responsible for content and accomplishment of the course.

The first day of the course is used to give an introduction to possible risk scenarios on Svalbard and theoretical introduction to first aid. At day 2 – 5 the students will go more in depth in the following subjects; use of rifle and pyrotechnics as polar bear protection, practical first aid, avalanche rescue, glacier rescue, rescue on sea ice, navigation, communication, emergency equipment, working in the lab and logistics facilities and HSE regulations for fieldwork.

At day 6 the whole course moves from UNIS and up to Longyear glacier moraines for a 6 hour long practical training and case studies from the different subjects in the course. This session ends up with a demonstration of the rescue helicopter from Airlift AS. Day 6 ends with a test and evaluation at UNIS.

### **6. Appendix.**

1. Timetable.
2. Lesson descriptions.
3. Detailed plan for day 6 (practical exercise on Longyear glacier moraines)
4. Groups during the safety course (will be ready shortly before course start).

Audun Tholfsen  
Head Engineer, Department of Operations and field safety  
UNIS





# 1. FIRST AID RESPONSE / COLD WEATHER SURVIVAL UNIS

<b>Time:</b>	1,5 h.
<b>Group:</b>	All groups
<b>Place:</b>	Møysalen
<b>Instructor:</b>	Martin Indreiten UNIS
<b>Instruction:</b>	Speech / discussions / power point presentation.

## **Content:**

- Theoretical first aid with emphasis on accident scene management, ABCDE, problems with cold and hypothermia prevention.
- Demonstration of both UNIS and personal clothing and “nice to have” small equipment suitable for arctic field work.

## **Objectives:**

The students should after the lesson have enough theoretical knowledge to start practical training in the following subjects:

- Life saving first aid in general
- Preventive measures to avoid injuries.
- Treatment of frostbites and hypothermia
- Treatment of burns.
- Treatment of fractures, wounds, outer and inner bleedings.
- Loss of circulation and respiration.
- Co poisoning.
- Be able to choose the correct type of clothing to their planned activity.
- Know the principle of clothing for all relevant activities.
- Know the difference between the different fabrics and advantage and disadvantage among them.

The teaching must relate the theory to local cases and experiences from the most commend injuries we find at Svalbard as a result of field activity (and snow scooter driving).

## **Administrative arrangements:**

## **References:**

- Compendium
- Practical First Aid, British Red Cross, 1998
- Førstehjelp, Norsk Førstehjelpsråd / Universitetsforlaget 1997

## 2. An introduction to Safety, Health and Environment issues on Svalbard



**Time:** 50 min.  
**Group:** All groups  
**Place:** Møysalen  
**Instructor:** Fred S. Hansen  
**Instruction:** Speech / power point presentation

### **Content:**

- General safety precautions and risk scenarios on Svalbard.
- The background for the safety course.

### **Objectives:**

The students should be able to:

- Understand the need for the safety course.
- Be motivated to fulfil the course.
- Understand that Longyearbyen could feel foreign for many newcomers and they should know who to talk to if they experience problems.
- The lesson will present the different subjects in the safety course, and explain why these subjects are important when doing fieldwork on Svalbard.

### **Administrative arrangements:**

**References:** - Booklet "Safety on Svalbard"  
- "Safety instructions for UNIS"

### 3. Information from the Governor on Svalbard

**Time:** 50 min.  
**Group:** All groups  
**Place:** Møysalen  
**Instructor:** Representatives from the Governor on Svalbard  
**Instruction:** Speech / power point presentation

**Content:**

- Authority in the local community
- Local search and rescue organization.
- Environmental legislation on Svalbard.

**Objectives:**

The students should be;

- Oriented about the Governors role, responsibility and authority on Svalbard.
- Familiar with the framework of environmental legislation on Svalbard.
- Familiar with the local search and rescue organization.

**Administrative arrangements:**

**References:**

## 4. First aid, practical training

**Time:** 4 h. pr group.  
**Group:** A+B+C+D+E+F+G+H  
**Place:** Kapp Wijk  
**Instructor:** Marte Agneberg Dahl  
**Instruction:** Instruction / demo / individual training

### **Content:**

- First aid, practical training.

### **Objectives:**

The students should be able to;

- Prevent and treat all types of cold related injuries.
- Prevent and treat local burns.
- Prevent and treat Co poisoning.
- Treat fractures and bleedings.
- Perform cardiopulmonary resuscitation (CPR)

### **Administrative arrangements:**

Equipment for exercise must be obtained well in advance of the lecture.

### **References:**

Compendium made by Oddvar Hagen.

Practical First Aid, British Red Cross, 1998.

Førstehjelp, Norsk Førstehjelpsråd / Universitetsforlaget 1997.

# 5. Emergency camp box contents and set up of camp

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	Logistics and outside
<b>Instructor:</b>	Trude Hohle
<b>Instruction:</b>	Instruction / demo / individual training

## **Content:**

Content in - and use of the UNIS emergency camp box.

## **Objectives:**

The main objective for this lesson is to build confidence among the students in use of the equipment in the UNIS emergency boxes so they don't hesitate to set up an emergency camp if needed.

After the lesson, the students should;

- As part of a group manage to set up the tent in the emergency boxes under all conditions.
- Know how to use the different thermo protection blankets and bags as personal protection and as patient protection.
- Be able to make a controlled fire in the camp stoves and be aware of the fact that it is possible to use normal petrol from the snow scooters to run the stoves.
- Know how to set up a trip wire fence (for polar bear protection) around the camp.
- Know the limitations and weakness of the trip wire system.
- Know how to use snow to build a windbreak and how to fasten the ropes to the snow using different kinds of objects, depending on the snow depth, quality and wind conditions.
- Know how to use snow scooters and sledges to secure the tent.
- Understand the importance of keeping control of all equipment so it does not disappear in the snow.
  
- Know in what situations they should choose to set up an emergency camp instead of continue their travel.

It is important that every student set up the tents several times, also outdoors to make sure they know how this is done.

## **Administrative arrangements:**

Emergency kit's needs to be ready before the lesson.

The Governors office needs to be notified about use of flares from the trip wire system.

## **References:**



## 6. Rifle handling and polar bear protection

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	The rifle range
<b>Instructor:</b>	Fred S. Hansen,
<b>Instruction:</b>	Instruction / demo / individual training

### Content:

- Polar bear theory
- Rifle and pyrotechnics' theory.
- Live exercise

### Objectives:

*The main objectives for this lesson is to make sure that the students understand how conflicts between humans and polar bears can be avoided and how to handle a rifle and flare gun in a safe way.*

After the lesson, the students should;

- Know how polar bears could behave in different situations.
- Know behaviour by the bear after being shot at.
- Understand how to avoid conflicts and confrontations.
- Be able to act correctly if meeting a polar bear.
- Understand that the polar bear is protected and can be shot in self defence only.
- Be able to use correctly as deterrent:
  - Signal pen
  - Signal pistol (flare gun)
  - Cracker
- Be able to understand and quote the safety regulations for rifle handling.
- Know how to safely handle and transport a rifle and ammunition.
- From a knee standing position, be able to shoot and hit 4 rounds within a radius of 40 cm at 35 m.
- Be able to maintain the rifle under all conditions.
- Be able to correct mal functions on the rifle.

### Administrative arrangements:

The rifle range and all equipment (rifles e.g.) must be checked well in advance of the lesson.

First aid equipment and transportation must be ready at the rifle range. Communications (telephone) must be checked and working before training with live ammunition starts.

### References:

Compendium made by UNIS.

UNIS safety regulations.

Booklet "The polar bear" by NP

# 7. Communication and navigation

**Time:** 4 h. pr group  
**Group:** A+B+C+D+E+F+G+H  
**Place:** Computer lab.  
**Instructor:** Stefan Claes/Sara M. Coen  
**Instruction:** Instruction / demo / individual training

## **Content:**

- Use of VHF radio, Satellite telephone and emergency beacon.
- Use of map, compass and GPS

## **Objectives:**

After the lesson, the students should;

- Be able to use VHF radios on all relevant frequencies.
- Know how and when to use VHF radio.
- Be able to communicate with a satellite telephone.
- Know when and how to use an emergency beacon.
- Be able to use map and compass to navigate.
- Be able to use a GPS as a navigation aid.

## **Administrative arrangements:**

All students should have their own VHF radio, map, compass and GPS during the lesson. The lesson must be as practical as possible.

## **References:**

Compendium and hand outs made by Stefan Claes.

## 8. Safe movement on glaciers, safety equipment and rescue operations on a glacier

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	Kapp Mitra
<b>Instructor:</b>	Fredrik Samuelsson
<b>Instruction:</b>	Instruction / demo / individual training

### Content:

- Risks and safe movement on glaciers and ice caves
- How to use UNIS equipment and rescue techniques in a crevasse accident

### Objectives:

The main objective for this lesson is to make sure that the students understand the risks connected to glaciers/ ice caves that could be dangerous and that safe movement on glaciers require special knowledge, skills and equipment.

After the lesson, the students should;

- Know the distinctive characteristic of glaciers on Svalbard.
- Understand that there are crevasses and melt water channels on all glaciers and why they could be dangerous.
- Understand how crevasses and melt water channels could be detected by map studies, studies in the terrain and by local knowledge.
- Know how you can travel safe on a glacier by snow scooter, on foot and on skies.
- Know the most common routes on glaciers on Nordenskjöld land and where you would expect to find crevasses.
- Be aware of the special “white out” conditions that can occur on a glacier and how this affects navigation and danger of losing each other.
- Know that some areas on a glacier will accumulate huge amounts of snow in a blizzard, and how this could affect your camp.
- Know what kind of safety equipment and skills safe travel on a glacier acquires and how to use this equipment.
- Know how to get out of a crevasse area.
- Know how to act and how to organize and prioritize the rescue work in a crevasse accident.
- Know how and when to use the equipment in the UNIS emergency glacier kit.
  - Simple rescue techniques.
  - Correct use of all parts of the equipment in the emergency kit.
  - How to get a person safely up from a crevasse.

### Administrative arrangements:

The lesson is split in two, with two hours theory and two hours practical training inside and outside.

### References:

- Breboka, DNTF
- <http://www.petzl.com>
- “Users guidance” for the UNIS glacier rescue kit.

# 9. Properties, Safe movement and rescue on sea ice

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	Kapp Lee / hole in the ice
<b>Instructor:</b>	Stein Simenstad
<b>Instruction:</b>	Instruction / demo / individual training

## **Content:**

Properties of sea ice. Safe movement on sea ice. Rescue work on sea ice.

## **Objectives:**

The main purpose of this lesson is to avoid accidents related to movement on sea ice by giving the students a thorough understanding of the phenomena.

After the lesson, the students should;

- Know how sea ice build during different temperatures in the water and in air.
- Know how stream and sea ice temperature work on the ice from underneath, and how this could weaken the ice.
- Know how thick sea ice we need to travel safely on foot, on skies and, with snow scooter and band wagon.
- Know how different phenomenon affect the sea ice;
  - Shallow areas
  - Glacier fronts
  - Islands
  - River outlets
  - Gas outlet from the bottom
  - Stream and tide
  - Wind
  - Icebreakers (boats)
- Know how surface water forms and why this can be a problem.
- Know how an ice foot at shore can make it difficult to get on land.
- Know how to plan and execute movement on unknown ice conditions.
- Know the local conditions in the most used areas on Nordenskjold land and other relevant areas with special conditions.
- Know how to behave if you find yourself in an area with surface water or area with unsafe ice conditions while driving snow scooter. (or suspect you are in such an area)
- Know what equipment and techniques that can be used to rescue someone who has gone through the ice.
- Know techniques that could be used for rescue work on thin ice.
- Know how to get up from the water and on to the ice by using the ice spikes.
- Be able to take care of a person who has fallen in water by using the content in the emergency camp kit.

## **Administrative arrangements:**

The lesson is split in two, with two hours theory and two hours practical training outside. The practical part should contain an exercise in how to get up from the water by using the ice spikes. This exercise must be planned in detail, and the students involved (in the water or close to the whole) needs to be secured with ropes. A warm tent, or house, needs to be in immediate distance from the exercise.

The exercise will be planned in detail after a full scale risk assessment.

## **References:**

# 10. Avalanche hazards and rescue work after an avalanche

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	Kapp Schoultz and outside
<b>Instructor:</b>	Dag F Fjeld
<b>Instruction:</b>	Instruction / demo / individual training

## Content:

- Snow, weather and terrain conditions that lead to an increased avalanche danger.
- Safety and route finding in avalanche terrain.
- Rescue work in an avalanche accident.

## Objectives:

*The main objective for this lesson is to make sure that the students can recognize avalanche danger and by doing so, be able to avoid avalanche accidents.*

After the lesson, the students should;

- Know the different snow, weather, temperature, and terrain conditions that creates a danger of avalanches.
- Know how changes in the parameters above could make the avalanche danger increase.
- Know avalanche prone terrain around Longyearbyen and the most used trails at Nordenskjold land.
- Know how to travel safely in avalanche prone terrain.
- Know how to estimate the avalanche danger by digging snow pits.
- Be aware of the probability of surviving an avalanche accident.
- Know how to organize and prioritize the rescue work.
- Know how to use an avalanche beacon.
- Know how to use avalanche probes, alone, and as a team.

## Administrative arrangements:

The lesson is split in two, with two hours theory and two hours practical training outside.

## References:

- Breboka, DNTF
- <http://www.sunalp.no/>
- <http://www.sunalp.no/sm.html>
- [http://www.genswein.com/manuel\\_lawine\\_english.html](http://www.genswein.com/manuel_lawine_english.html)

# 11 Health, Safety and Environmental regulations and policy at UNIS

<b>Time:</b>	4 h. pr group
<b>Group:</b>	A+B+C+D+E+F+G+H
<b>Place:</b>	Lassegrotta, Lab areas and logistics facilities
<b>Instructor:</b>	Audun Tholfsen,
<b>Instruction:</b>	Instruction / demo

## Content:

- Safety instructions for work in the laboratory area and logistics facilities (workshop e.g.)
- UNIS Health, Safety and Environmental (HSE) regulation and policy, including preparations and planning for fieldwork.
- Fire protection at UNIS and how to evacuate the building in case of fire or other dangerous incidents.
- Medical health care and psychosocial aspects
- Get to know UNIS; who does what and where.
- Study administrative affairs.

## Objectives:

The main objective for this lesson is to give new students and staff a head start concerning how to get things done in a right way at UNIS.

After the lesson, the students should;

- Know where and who to ask for guidance and permission before starting their work at the lab and in the logistic facilities.
- Know the fire drill routines, the fire escape routes and rallying point. (In case of fire; outside the main entrance of UNIS. Other incidents; UNIS Guest House)
- Be oriented about the different set of regulations concerning use of the lab and logistic facilities as well as preparations to- and accomplishing of field work.
- Be able to fill out the HSE documentation for fieldwork and understand that this is a binding agreement between the field party and UNIS.
- Know what areas and equipment at UNIS that you need a special permit to enter or use.
- Be oriented about how the car regulations at UNIS work. (from the reception).
- Know the different departments and authorities at UNIS, and where to get help / assistance in different questions.
- Know what kind of equipment that is for welfare use, and when this can be borrowed (rifles and flare guns).
- Know the regulations for storing of fire arms and ammunition at UNIS and in Nybyen
- Know who to make contact with in case of medical problems during the stay on Svalbard.

## Administrative arrangements:

The lesson must include a detailed “walkabout” in the whole UNIS area.

## References:

# 12. Practical training Saturday: Use of the emergency camp kit.

<b>Time:</b>	60 min pr group
<b>Group:</b>	All participants rotating in 5 big groups.
<b>Place:</b>	Moraine area in front of Longyearbreen
<b>Instruction:</b>	Case exercise.
<b>Rotating:</b>	

## **Content:**

Practical use of the content in the UNIS emergency camp kit.

## **Objectives:**

The main objective for this exercise is to let the students draw experience and build confidence by solving a realistic case as a group.

The case is solved when;

- The tent is put up correctly and secured for wind.
- The stove is burning and snow is put on for melting.
- All equipment is taken care of and secured for wind and snow.
- All participants are inside the tent.
- Trip wires mounted around the tent.
- One person should always take care of the stove.
- Time limit for this exercise is 30 min.

## **Administrative arrangements:**

The exercise is presented for the students as a case that will have to be solved within the time limit.

If time allows, the case can be done two times.

- 4 emergency boxes
- 8 snow scooters + sleighs, jerry cans

## **References:**

# 13. Practical training Saturday: Glacier rescue

<b>Time:</b>	60 min pr group
<b>Group:</b>	All participants rotating in 5 big groups
<b>Place:</b>	Moraine area in front of Longyearbreen
<b>Instruction:</b>	Case exercise.
<b>Rotating:</b>	

## **Content:**

Practical training in how to use the equipment in the UNIS glacier rescue kit.

## **Objectives:**

The main objective for this exercise is to get more training in using the glacier rescue equipment under realistic conditions.

The case is solved when;

- Everyone in the group successfully has rigged a complete rope system for hauling an injured person up from a crevasse.
- The snow scooters is used at anchors.

## **Administrative arrangements:**

The exercise is presented for the students as a case that will have to be solved within the time limit.

The groups perform the exercise as many times as the time limit permits. The groups should get feedback on their performance after each exercise. The instructors should mainly let the students work as a group without interfering, but should intervene if something is done clearly wrong. Special emphasis should be taken to how they manage organize the rescue work and how they manage to think safety for the whole group.

- 4 complete glacier emergency kit`s.
- 4 snow scooters

## **References:**



# 14. Practical training Saturday: Avalanche rescue

<b>Time:</b>	60 min pr group
<b>Group:</b>	All participants rotating in 5 big groups
<b>Place:</b>	Moraine area in front of Longyearbreen
<b>Instruction:</b>	Case exercise
<b>Rotating:</b>	

## **Content:**

Practical training in how to plan and perform a search in an avalanche.

## **Objectives:**

The main objective for this exercise is to get practical training in how to plan and perform an initial search in an avalanche.

The case is solved when:

- The rescue work is organized correctly by the responsible student.
  - An initial search is being performed.
  - The avalanche beacons are being used correctly
  - The search lines is operating correctly.
  - All buried objects are found.
- 
- Everyone in the group should try to hit a human body with the search probe to know how this might feel in a real accident.

## **Administrative arrangements:**

The exercise is presented for the students as a case that will have to be solved within the time limit.

The student body divides in to smaller groups (2 – 3 depending of the number of students)

The groups perform the exercise as many times as the time limit permits. The groups should get feedback on their performance after each exercise. The instructors should mainly let the students work as a group without interfering, but should intervene if something is done clearly wrong. Special emphasis should be taken to how they manage organize the rescue work and how they manage to think safety for the whole group.

- 30 search probes.
- 30 avalanche beacons

## **References:**

# 15. Practical training Saturday: Accident

## 1<sup>st</sup> Aid

<b>Time:</b>	60 min pr group
<b>Group:</b>	All participants rotating in 5 big groups
<b>Place:</b>	Moraine area in front of Longyearbreen
<b>Instruction:</b>	Case exercise
<b>Rotating:</b>	

### **Content:**

Practical training in how to respond to a snow scooter accident involving an unconscious patient with helmet on.

### **Objectives:**

The main objective for this exercise is to get practical training in how to plan and perform correct first aid and accident scene management.

The case is solved when:

- The patient is checked for possible wounds, bleedings, respiration, puls and other damages.
- The patient is stabilized and measures are taken to keep the patient warm.
- The accident scene is secured regarding other possible threats (polar bear, traffic, avalanche, aso.)
- The accident is reported to the Governor with at least the following information:
  - Who is reporting in.
  - What has happened.
  - When.
  - Where (coordinates)
  - The status of the patient.
  - Need of evacuation
  - The status of the rest of the group.
- An possible landing site for helicopter is prepared.

### **Administrative arrangements:**

The exercise is presented for the students as a case that will have to be solved within the time limit.

The student body divides in to smaller groups (3-4 depending of the number of students)

The groups perform the exercise as many times as the time limit permits. The groups should get feedback on their performance after each exercise. The instructors should mainly let the students work as a group without interfering, but should intervene if something is done clearly wrong. Special emphasis should be taken to how they manage organize the rescue work and how they manage to think safety for the whole group.

- 4 snowscooters, complete with personal rescue kit (shovel, jerven duk, sitting pad)
- 4 snowscooter suits and helmets

### **References:**

# 16. Practical training Saturday: Emergency shelter and transport of patient

<b>Time:</b>	60 min pr group
<b>Group:</b>	All participants rotating in 5 big groups
<b>Place:</b>	Moraine area in front of Longyearbreen
<b>Instruction:</b>	Demo and practical training
<b>Rotating:</b>	

## **Content:**

Practical training in how to use “Jerven” protection shelter, demonstration of how to dig snow shelters and improvised transportation of patient.

## **Objectives:**

The main objective for this exercise is to get:

- practical training in how to use the “Jerven duk”,
- make a patient ready for transport (improvise a stretcher),
- know how to prevent hypothermia (“packing”) during transport of a patient,
- and understand the principles for digging snow shelters

The case is solved when:

- When all participants can make the “Jerven duk” ready for use and correctly dress it on.
- With different types of equipment, improvise a stretcher for transport a patient.
- “Pack” a patient, using the “Hilbert’s method”

## **Administrative arrangements:**

The exercise is presented for the students as a demonstration of equipment and snow shelter. And practical training in use of “Jerven duk” and improvising a stretcher. And as a case where they shall prepare and transport a patient. The student body divides in to smaller groups (5-6 depending of the number of students)

The groups perform the exercise as many times as the time limit permits. The groups should get feedback on their performance after each exercise. The instructors should mainly let the students work as a group without interfering, but should intervene if something is done clearly wrong. Special emphasis should be taken to how they manage organize the rescue work and how they manage to think safety for the whole group.

- 1 snow scooters, complete with personal rescue kit (shovel, jerven duk, sitting pad)
- 4 Shovels 2 snow saws
- 6 back packs, 6 sleeping pads, 6 Blizzards, 6 Jerven Duk, 6 sleeping bags, 6 candles
- 20 Jerven duk (if possible 20 personal snow scooter rescue kits)

## **References:**

## 17. Evaluation

<b>Time:</b>	40 min
<b>Group:</b>	All groups
<b>Place:</b>	Møysalen
<b>Instructor:</b>	Audun Tholfsen
<b>Instruction:</b>	Evaluation - digital

### **Content:**

Evaluation of the content and the instructors of the safety course.

### **Objectives:**

The main objective for the evaluation is to learn if the course is working as planned, and to make improvements for next course.

### **Administrative arrangements:**

Everybody needs a laptop, iPad, smart phone

### **References:**

Appendix 3  
**Practical training at Longyearbre moraine**  
**Saturday**

Time	Place	Accomplishment	Remarks
08:00-09:00	Nybyen	All students meet at the parking place in Nybyen at 08:00h. Group leaders will take their group by foot up to Longyearbreen. Fred S. Hansen lead the march.	Group leaders will get a rifle, signal pistol, VHF radio, GPS and two head lamps.
09:00-13:50	Longyearbreen	Rotating in four big groups on the following stations: 1. Establishing emergency camp . 2. Glacier rescue. 3. Search in an avalanche 4. Accident emergency response 5. Emergency shelter/ Transport of injured person	All equipment needed and hot drinks in containers, are to be brought out with the instructors on snow scooter or band wagon.
14:00	Longyearbreen	Demonstration of the Super Puma rescue helicopter from Syssemmannen	The “emergency camp” group establish a camp from where the rescue will take place.
14:30-15:00	Longyearbyen To UNIS	March back to the parking place in Nybyen, where buses will be waiting to take everybody back to UNIS.	

**Plan:**

Case exercises starts at:	<b>09:00</b>	<b>10:00</b>	<b>11:00</b>	<b>12:00</b>	<b>13:00</b>
Case exercises ends at:	<b>09:50 + 10 min</b>	<b>10:50 + 10 min</b>	<b>11:50 + 10 min.</b>	<b>12:50 + 10 min</b>	<b>13:50</b>

**Responsible instructor:**

**Equipment**

<b>Emergency camp:</b>	Trude Hohle	4 emergency boxes 8 snow scooters
<b>Glacier Rescue:</b>	Riku Väliavaara	4 glacier kit. 4 snow scooters
<b>Search in avalanche:</b>	Martin Indreiten	30 search poles 30 avalanche beacons
<b>Accident management response</b>	Marte Agneberg Dahl	4 snows cooters Jerven duk + shovels
<b>Emergency shelter/ Transport</b>	Stein Simenstad	Jerven duk

**Administrative arrangements:**

Main instructors must arrange for all equipment for each case. Equipment and hot drinks will be transported up with BV . All instructors wear UNIS reflector vests, and main instructor bring a rifle, signal pistol and VHF radio. Use ch. 05.

If the weather doesn't permit us to do as planned on Longyearbreen, an alternative accomplishment will be carried out in the surroundings of UNIS. A decision on this will be taken Friday at 15:30.