



Governor of Svalbard

# Course and learning objectives for Svalbard guide

Designed in accordance with Section 11 of the Regulations for safety in the field, etc. in Svalbard (Field Operation Safety Regulations)



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## 1. Structure

The learning outcomes in this document are designed in accordance with the guidelines of the Norwegian Agency for Quality Assurance in Education (NOKUT), as outlined in the *Norwegian Qualifications Framework for Lifelong Learning*. The learning outcomes are divided into three categories: knowledge, skills and general competence.

The category *knowledge* encompasses understanding of key theories, facts and principles. The category *skills* concern the practical application of acquired knowledge. The category *general competence* refers to the overall application of knowledge and skills, developed through a combination of different courses and relevant experience.

A detailed description of these categories is provided in the table below, which is reproduced directly from NOKUT's guidelines.

*Table 1:* (Source: <https://www.nokut.no/en/norwegian-education/the-norwegian-qualifications-framework-for-lifelong-learning/> )

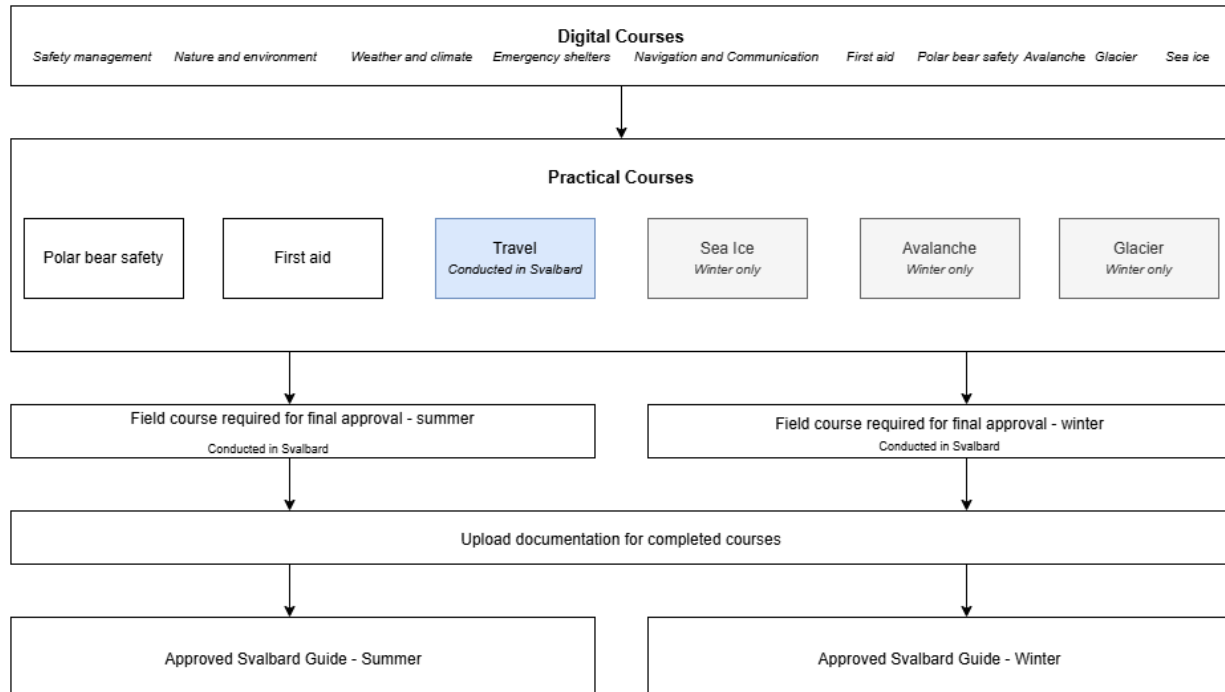
<b>Learning objective</b>	<b>Description</b>
<b>Knowledge</b>	Understanding of theories, facts, principles and procedures in subject areas and/or occupations
<b>Skills</b>	Ability to utilise knowledge to solve problems or tasks (cognitive, practical, creative and communication skills)
<b>General competence</b>	Ability to utilise knowledge and skills in an independent manner in different situations

The guide approval is structured in three parts. The first part is digital, and the main purpose is to meet the basic knowledge objectives. The second part consists of practical training and focuses on learning outcomes related to skills and general competence. The third and final part is a field course with a final assessment. This involves integration and adaptation of the topics from the previous modules to the conditions in Svalbard.

A visual overview of the approval process is presented in Figure 1 below.



Figure 1: Visual overview of the approval process



## 1.1 Digital courses

The digital module constitutes the first step in the approval process and provides the candidate with a theoretical introduction to the various topics. The purpose is to cover the basic knowledge learning objectives in a thorough and structured manner, which will enable the candidate to work in a more practical and in-depth manner during the in-person courses. The digital component is delivered by the Governor of Svalbard. The module concludes with a theoretical test, which the candidate must pass in order to proceed further in the approval process.

## 1.2 Practical courses

The practical component is based on the established knowledge objectives and serves as a more in-depth extension covering the objectives for skills and general competence. All practical courses may be conducted by approved course providers, as long as the courses



meet the specified requirements for learning outcomes and duration. An overview of the practical courses is presented in Table 4 below. However, the *travel* course must be conducted in Svalbard because the conditions related to travelling in Svalbard's environment are considered so unique that local training is required.

*Table 2: Overview of the practical courses, including the intended duration of the courses*

<b>Course</b>	<b>Duration (and comments)</b>
Travel	16 hours, conducted in Svalbard
Polar bear safety	16 hours
Glacier	16 hours, winter only
Sea ice	16 hours, winter only
Avalanche	16 hours, winter only
First aid	16 hours

### 1.3 Field course required for final approval

The Field course required for final approval is based on the competence the candidate has acquired through the digital module and the practical courses. The purpose of the field course is to integrate and apply the knowledge and skills from all modules in practice through scenario-based training. This enables the candidate to achieve a comprehensive understanding of safe travel in Svalbard's unique and demanding environment. This component also involves the necessary adaptation of skills developed in practical courses on the Norwegian mainland to ensure that they align with the local conditions in Svalbard. The candidate may only undertake the field course once they have been completed all the practical courses.

The field course is offered in two **seasonal** variants: summer and winter. The summer variant lasts three days and includes one night in the field, while the winter variant lasts four days and includes two nights in the field. Successful completion of the winter field course automatically grants approval for the summer variant, but not vice versa.

The candidate may apply for approval when they have completed and passed the Field course required for final approval.



The course descriptions for the various components of the approval process are presented in Table 5. Each course description includes information about the content, scope and final assessment in the field course.

*Table 3 Combined overview of the courses in the approval process*

<b>Course</b>	<b>Digital</b>	<b>Practical</b>	<b>Field course</b>
Safety management	2 hours	Practical course “travel” 16 hours	Summer: 3 days Winter: 4 days
Nature and environment	4 hours		
Weather and climate	2 hours		
Emergency shelters	2 hours		
Navigation and communication	2 hours		
Travel	2 hours		
First aid	4 hours	16 hours	
Polar bear safety	4 hours	16 hours	
Travel in avalanche-prone terrain	4 hours	16 hours	
Travel on snow-covered glaciers	4 hours	16 hours	
Travel on sea ice	4 hours	16 hours	
<i>Total</i>	<i>34 hours</i>	<i>96 hours</i>	

The following section provides a detailed description of each course.

## 2. Course descriptions

### 2.1 Course - Safety management

After completing the course, the candidate should be able to apply appropriate methods to identify, assess and manage natural hazards in Svalbard. The candidate should also be able to obtain, understand and use relevant information from safety management documents in a professionally responsible manner.

#### **Description of course content:**

- Safety management
- Risk assessment
- Barrier theory
- Tools and models for identification of barriers



- Tools and models for operationalisation for trip planning

### Learning objectives

<p>Knowledge</p>	<p><i>The candidate:</i></p> <p>RK1 Is familiar with basic principles for safety management</p> <p>RK2 Is familiar with basic principles for assessment of risk</p> <p>RK3 Is familiar with relevant models from safety theory</p>
<p>Skills</p>	<p><i>The candidate:</i></p> <p>RF1 Can retrieve relevant information from safety management documents (risk analyses analyser, manuals and procedures, etc.)</p> <p>RF2 Can carry out a simple risk analysis of a trip</p> <p>RF3 Can use relevant models to identify possible barriers</p> <p>RF4 Can apply models for operationalisation of trip planning</p>
<p>General competence</p>	<p><i>The candidate:</i></p> <p>RG1 Can apply relevant information from safety management documents to trip planning</p> <p>RG2 Can propose appropriate risk mitigation measures based on a risk analysis</p>



## 2.2 Course - Nature and environment

After completing the course, the candidate should have basic knowledge of the natural and cultural conditions in Svalbard and understand the legislation that regulates activities in the area. The candidate should be able to identify relevant rules, restrictions and nature conservation regulations, and apply this knowledge in the planning and execution of responsible travel. Moreover, the candidate should understand how considerations for vulnerable environmental values influence route selection, activities and communication.

### Description of course content

- Basic knowledge about:
  - Svalbard's flora, fauna, cultural heritage, the natural environment in general and ecological connections,
  - effects of different forms of travel on Svalbard's natural environment and cultural heritage,
  - applicable provisions of the Svalbard Environmental Protection Act and related regulations, and
  - Svalbard's history, the legal framework governing Norway's sovereignty over Svalbard and the associated administration of the archipelago.

### Learning objectives

Knowledge	<p><i>The candidate:</i></p> <p>MK1 Has basic knowledge about Svalbard's flora, fauna, cultural heritage, natural environment and ecological connections</p> <p>MK2 Is familiar with the effects of various forms of travel on Svalbard's natural environment and cultural heritage</p> <p>MK3 Has knowledge about the applicable provisions of the Svalbard Environmental Protection Act and related regulations</p>
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	<p>MK4</p> <p>Is familiar with Svalbard's history and the administration of the archipelago</p>
Skills	<p><i>The candidate:</i></p> <p>MF1 Can plan trips that consider natural and cultural values and are conducted within the bounds of the law</p> <p>MF2 Can communicate accurate and useful information to guests about nature, cultural heritage and Svalbard's history</p> <p>MF3 Can use relevant map resources to plan travel that respects natural and cultural values</p>
General competence	<p><i>The candidate:</i></p> <p>MG1 Can use relevant legal sources for lawful travel in trip planning, including digital tools and map databases</p> <p>MG2 Can apply and communicate knowledge of flora, fauna, cultural heritage and the natural environment when conducting guided trips to ensure that travel, activities or stays do not cause damage to or disturbance of the natural environment and cultural heritage</p>

### 2.3 Course – Weather and climate

After completing the course, the candidate should be able to obtain, interpret and apply relevant meteorological information in the planning and execution of trips. The candidate should understand how weather conditions, climatic characteristics and local variations affect safe travel. Moreover, the candidate should be able to make professionally



responsible assessments based on available forecasts and the uncertainty in weather forecasts.

**Description of course content:**

- Weather systems
- Svalbard's climate
- Information sources
- Interpret weather data
- Uncertainty in weather forecasts
- Local conditions

**Learning objectives**

<p>Knowledge</p>	<p><i>The candidate:</i></p> <p>VK1 Has knowledge about weather systems</p> <p>VK2 Is familiar with relevant information sources for weather data and local weather stations</p> <p>VK3 Is familiar with how local weather forecasts are generated and the limitations associated with them</p> <p>VK4 Can explain how local weather phenomena develop and how they can create challenges for travel</p> <p>VK5 Can interpret relevant weather data</p> <p>VK6 Is familiar with how climate change effects the natural environment in Svalbard</p>
<p>Skills</p>	<p><i>The candidate:</i></p> <p>VF1 Can explain and interpret relevant weather data</p> <p>VF2 Can choose and apply relevant information sources for weather data</p>



	VF3 Can explain how special weather phenomena can create challenges for travel
General competence	<i>The candidate:</i> VG1 Can use relevant information sources for weather in the planning of trips

## 2.4 Course – Emergency shelters

After completing the course, the candidate should be able to select, size and use relevant safety and emergency equipment in a professionally responsible manner. The candidate should be able to establish emergency shelters and set up emergency bivouacs under demanding and unforeseen conditions. Moreover, the candidate should be able to understand how proper handling of emergency equipment contributes to safeguarding the patient and other guests in the event of incidents caused by changing weather conditions or injuries within the group.

### Description of course content:

- Emergency equipment (guide kit/shore kit)
- Emergency shelters
- Emergency bivouac

### Learning objectives

Knowledge	<i>The candidate:</i> CK1 Is familiar with basic principles for emergency shelters CK2 Is familiar with basic principles for emergency bivouacs CK3 Has knowledge about relevant emergency equipment
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Skills	<i>The candidate:</i>  CF1 Can set up emergency shelters  CF2 Can set up emergency bivouacs  CF3 Can use relevant emergency equipment
General competence	<i>The candidate:</i>  CK1 Can take care of a group in an emergency until the group can be evacuated  CK2 Can assess which emergency equipment is relevant for the planned activity

## 2.5 Course – Navigation and communication

After completing the course, the candidate should be able to use relevant communication and navigation equipment necessary for safe travel in areas without conventional telecommunications. The candidate should understand the function, applications and limitations of satellite- and radio-based systems, as well as be able to maintain and use the required communication equipment. Moreover, the candidate should also be able to use navigation tools in a safe and effective manner under varying field conditions.

### **Description of course content:**

- Communication equipment
  - Satellite phone
  - PLB
  - VHF
  - Inreach
- Maintenance of communication equipment
- Navigation equipment
  - GPS
  - Map and compass



## Learning objectives

<p>Knowledge</p>	<p><i>The candidate:</i></p> <p>KK1 Has knowledge about relevant communication equipment, including their strengths and limitations</p> <p>KK2 Has knowledge about common faults and maintenance of communication equipment</p> <p>KK3 Has knowledge about emergency notification procedures</p> <p>KK4 Has knowledge about navigation equipment GPS, digital maps and paper maps</p>
<p>Skills</p>	<p><i>The candidate:</i></p> <p>KF1 Can use relevant communication equipment Satellite phone PLB VHF Inreach</p> <p>KF2 Can navigate using a GPS and is familiar with the limitations of GPS devices</p> <p>KF3 Can perform basic navigation with map and compass (bearing and map reference)</p>
<p>General competence</p>	<p><i>The candidate:</i></p> <p>KG1 Can apply relevant map data to plan travel</p> <p>KG2 Can adapt the choice of communication and navigation equipment based on the length and destination of the trip</p>



## 2.6 Course – Travel

After completing the course, the candidate should be able to plan and execute travel in Svalbard in a safe and professionally responsible manner. The candidate should be able to apply knowledge from safety management, meteorology, natural and cultural resource management, emergency preparedness, navigation and communication to identify and manage risk factors. Moreover, the candidate should also be able to assess natural hazards associated with various types of terrain and situations, as well as use this as a basis for making responsible decisions before and during the trip.

The travel course is conducted in Svalbard.

### Description of course content

- Trip planning
  - Weather
  - Nature conservation
  - Cultural heritage
  - Navigation
  - Safety management documents
- Sizing of safety equipment
- Natural hazards during travel
  - Rockfall
  - Landslide/soil creep
  - Steep terrain
  - River crossing
  - Travel in the coastal zone

### Learning objectives

Knowledge	<p><i>The candidate:</i></p> <p>FeK1 Has knowledge about natural hazards during travel</p> <p>Rockfall</p> <p>Landslide/soil creep</p> <p>Steep terrain</p> <p>River crossing</p> <p>Travel in the coastal zone</p>
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	<p>FeK2 Has knowledge about appropriate route selection</p> <p>FeK3 Has knowledge about the principles of leave-no-trace travel</p>
Skills	<p><i>The candidate:</i></p> <p>FeF1 brief guests with relevant information and procedures before the start of the trip</p>
General competence	<p><i>The candidate:</i></p> <p>RG1 Can apply relevant information from safety management documents to trip planning</p> <p>RG2 Can propose appropriate risk mitigation measures based on a risk analysis</p> <p>VG1 Can use relevant information sources for weather to plan trips</p> <p>CK3 Can assess which emergency equipment is relevant for the planned activity</p> <p>KG1 Can apply relevant map data to plan travel</p> <p>KG2 Can adapt the choice of communication and navigation equipment based on the length and destination of the trip</p>



## 2.7 Course – First aid

After completing the course, the candidate should be able to perform first aid under demanding conditions and handle medical emergencies until professional help arrives. The candidate should understand which injuries and conditions are most relevant to Svalbard's natural environment. Moreover, the candidate should be able to implement appropriate measures, considering available equipment, weather conditions and distances to healthcare services.

### Description of course content

- Personal safety
- Incident command
- Primary assessment (ABC)
- Secondary assessment (ABCDE)
- Relevant injuries/emergencies:
  - Fractures
  - Bleeding
  - Hypothermia (low body temperature)
  - Frostbite
  - High-energy injuries (head, neck, spine and internal bleeding)
  - Carbon monoxide poisoning (CO poisoning/oxygen deficiency)
  - Burns
  - Zoonoses (transmission from animals to humans)
- Packaging and transport of the patient
- First aid equipment

### Learning objectives

Knowledge	<p><i>The candidate:</i></p> <p>FK1 Has knowledge about primary and secondary assessment of patients</p> <p>FK2 Has knowledge about the most common injuries/emergencies associated with the field activity: Hypothermia (low body temperature)</p>
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	<p>Frostbite Fractures Bleeding High-energy injuries Carbon monoxide poisoning Burns Zoonoses</p> <p>FK3 Has knowledge about first aid equipment and equipment to keep the patient warm</p> <p>FK4 Is familiar with challenges with first aid in cold climates</p> <p>FK5 Has knowledge about incident command</p> <p>FK6 Is familiar with SAR resources in Longyearbyen via the Governor of Svalbard UNN Longyearbyen</p>
Skills	<p><i>The candidate:</i></p> <p>FF1 Can explain and perform primary and secondary assessments in the field and in cold climates</p> <p>FF2 Can treat acute, life-threatening injuries in the field</p> <p>FF3 Can perform cardiopulmonary resuscitation (CPR) in the field</p> <p>FF4 Can treat the most common injuries/emergencies in the field: Hypothermia (low body temperature) Frostbite Fractures Bleeding High-energy injuries Carbon monoxide poisoning Burns</p>



	<p>FF5 Can explain different methods of patient transport and discuss whether moving the patient is appropriate</p> <p>FF6 Can select and adapt relevant first aid equipment to the duration of the trip, participant group, type of activity and risk profile</p>
General competence	<p><i>The candidate:</i></p> <p>FG1 Can take command at an incident scene following basic principles to ensure the safety of oneself, the group and the patient</p> <p>FG2 Can perform necessary first aid to stabilise a patient and keep them warm until rescue personnel arrive</p> <p>FG3 Can prepare the patient for evacuation and give a status report from the incident scene to organised rescue services</p>

## 2.8 Course – Polar bear safety

After completing the course, the candidate should be able to identify risk factors associated with polar bears and implement preventive measures to minimise the risk of unwanted encounters. The candidate should understand polar bear biology, behaviour and habitats, and be able to plan and act in a manner that ensures guest safety while respecting and protecting the wildlife. Additionally, the candidate should be proficient in the safe and correct handling of weapons for use in emergency situations.

### Description of course content

- Polar bears:
  - Biology
  - Habitat
  - Distribution
  - Behaviour
  - Ecology
  - Relevant legislation



- Procedures:
  - Previous incidents involving polar bears
  - Procedures and best practices for different types of travel
  - Procedures and best practices for camp/tent/cabin
  - Procedures and best practices for polar bear encounters in relevant situations
- Weapon handling:
  - Relevant legislation (acquisition, storage, transport, lending, import and export to/from Svalbard)
  - Safe weapon handling procedures
  - The functions and components of a bolt-action rifle
  - Procedure for half-loading a rifle
  - Shooting positions
  - Shooting technique
  - Signal pistols
  - Tripwire flares
  - Maintenance of rifles and signal pistols

Knowledge	<i>The candidate:</i>	
	<i>IK1</i>	Has insight into relevant legislation covering firearms
	<i>IK2</i>	Has knowledge of the functions and components of a bolt-action rifle
	<i>IK3</i>	Has knowledge of the functions and areas of use of a signal pistol
	<i>IK4</i>	Has knowledge of safe handling of weapons
	<i>IK5</i>	Has knowledge of legislation concerning polar bear protection
	<i>IK6</i>	Has knowledge of the biology, behaviour, distribution and ecology of polar bears



	<p>IK7 Is familiar with the local distribution of polar bears in Svalbard</p> <p>IK8 Is familiar with how climate change affects the population and behaviour of polar bears</p> <p>IK9 Is familiar with the main causes underlying incidents and accidents in Svalbard</p> <p>IK10 Can describe the principles of safe travel in relation to polar bears</p>
Skills	<p><i>The candidate:</i></p> <p>IF1 Demonstrates safe handling of weapons</p> <p>IF2 Can use the prone, kneeling and standing shooting positions</p> <p>IF3 Has knowledge of how stress influences accuracy and overall performance when shooting a rifle</p> <p>IF4 Can demonstrate good shooting skills:       <ul style="list-style-type: none"> <li>• Shoot (4 rounds) and hit a target 30 cm in diameter from a kneeling position at 35 m distance within a 10-second time limit</li> <li>• Shoot (4 rounds) and hit a target 30 cm in diameter from a standing position at 15 m distance within a 10-second time limit</li> </ul> </p> <p>IF5 Can demonstrate the safe and correct use of a signal pistol with blank and signalling ammunition</p> <p>IF6 Can demonstrate the safe and correct use of deterrent devices during stays in tents or cabins</p> <p>IF7 Can carry out basic maintenance of rifles and signal pistols</p>



	IF8	Can inform a group about procedures for encountering polar bears
General competence	<i>The candidate:</i>	
	IG1	Demonstrates safe weapon handling with a rifle and signal pistol in all relevant situations
	IG2	Can communicate knowledge about polar bears in a manner that contributes to guests understanding the need for safe and preventive behaviour.
	IG3	Can apply knowledge about the biology, behaviour, distribution and ecology of polar bears to plan and execute travel in the safest possible way to avoid conflict with polar bears, including: <ul style="list-style-type: none"> <li>• <i>On foot</i></li> <li>• <i>On skis</i></li> <li>• <i>In cabins</i></li> <li>• <i>In tent camps</i></li> <li>• <i>During landing operations</i></li> </ul>
	IG4	Can lead a group in encounters with polar bears and use their knowledge and skills to avert a conflict situation and prevent injury to the guests or polar bear

## 2.9 Course – Travel in avalanche-prone terrain

After completing the course, the candidate should understand how terrain, snow cover and weather conditions affect avalanche risk and be able to apply this knowledge in the planning and execution of travel in avalanche-prone areas. The candidate should be able to perform companion rescue and be capable of organising and leading a search for people caught in an avalanche. The course provides a basic introduction to safe travel in



avalanche-prone terrain. However, this is insufficient for guides intending to undertake professional work in steep terrain or run-out zones, e.g. as a ski touring guide.

### Description of course content

- Terrain
- Snow cover
- Weather
- Human factor
- Trip planning
- Warning signs
- Search and rescue

### Learning objectives

Knowledge	<p><i>The candidate:</i></p> <p>SkK1 Has knowledge of basic aspects of weather, terrain, snowpack and human factors related to safe travel</p> <p>SkK2 Has knowledge of local conditions regarding weather, terrain and snow cover in Svalbard*</p> <p>SkK3 Has knowledge of different types of avalanches and basic avalanche dynamics</p> <p>SkK4 Is aware of how climate change affects local avalanche risk*</p> <p>SkK5 Has knowledge of how to use weather and avalanche forecasts in trip planning</p> <p>SkK6 Is familiar with methods for assessing snowpack stability</p> <p>SkK7 Has knowledge of how companion rescue is organised and carried out, as well as the use of necessary safety equipment</p>
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	<p>SkK8 Has knowledge of warning signs that affect avalanche risk</p> <p>SkK9 Is familiar with previous avalanche accidents in Svalbard*</p> <p>SkK10 Is familiar with the Norwegian avalanche warning system</p>
Skills	<p><i>The candidate:</i></p> <p>SkF1 Can assess avalanche risk in an area through knowledge of weather, snow conditions, terrain and humans</p> <p>SkF2 Can recognize terrain traps and warning signs</p> <p>SkF3 Can recognize potential avalanche release and run-out zones on maps and in the terrain</p> <p>SkF4 Can explain methods for organising search and rescue operations for one or more avalanche victims</p> <p>SkF5 Can interpret an avalanche forecast and evaluate its relevance for a planned trip</p>
General competence	<p><i>The candidate:</i></p> <p>SkG1 Can plan and execute a trip based on knowledge of the local conditions, weather forecast, snow conditions, terrain and avalanche forecast</p> <p>SkG2 Can plan and lead trips in the Svalbard wilderness in a way that avoids unnecessary exposure</p> <p>SkG3 Can carry out and lead a search and rescue operation for one or more avalanche victims</p>



\* The practical course must cover all the learning objectives that are not specific to Svalbard. Learning objectives unique to Svalbard will be covered in the digital module and the assessment module.

## 2.10 Course – Travel on glaciers

After completing the course, the candidate should understand the structure and movement of glaciers, as well as the risk factors associated with travel on snow-covered glaciers. The candidate should be able to identify hazardous areas, assess dangers, and implement necessary measures to reduce risk. The candidate should also be able to carry out companion rescue on snow-covered glaciers in a safe and effective manner. The course provides a basic introduction to safe travel on snow-covered glaciers. However, this is insufficient for guides intending to undertake professional work in technically demanding glacial environments, such as glacier guiding or work in highly crevassed terrain or on blue ice.

### Description of course content

- Typer of glaciers
- Glacial structure
- Glacial movement
- Use of satellite data
- Travel on snow-covered glaciers
- Securing and rescuing a patient from a crevasse or similar hazard

### Learning objectives

Knowledge	<i>The candidate:</i>	
	BK1	Has knowledge of the structure and movement of the glacier
	BK2	Is familiar with how glaciers are affected by climate change and annual variations in temperature and precipitation



	<p>BK3 Has knowledge of practical navigation and leadership of glacier travel</p> <p>BK4 Has knowledge of principles for securing and companion rescue on glaciers</p> <p>BK5 Can describe specific local conditions related to glaciers in Nordenskiöld Land and the most commonly used routes*</p>
Skills	<p><i>The candidate:</i></p> <p>BF1 Can find and assess relevant information for evaluating glaciers</p> <p>BF2 Can assess and identify areas on a glacier that are likely to be unsafe</p> <p>BF3 Can explain practical navigation and leadership of glacier travel</p> <p>BF4 Can use personal rescue equipment and equipment for securing and performing companion rescue on a glacier</p>
General competence	<p><i>The candidate:</i></p> <p>BG1 Can plan and lead trips on glaciers, including gathering information, planning the route and providing guidance about routines and travel</p> <p>BG2 Can lead the securing and companion rescue of a patient on a snow-covered glacier</p>

\* The practical course must cover all the learning objectives that are not specific to Svalbard. Learning objectives unique to Svalbard will be covered in the digital module and the assessment module.



## 2.11 Course – Travel on sea ice

After completing the course, the candidate should understand how sea ice forms and how weather conditions, currents and seabed conditions affect the stability of the ice. The candidate should be able to select safe routes for travel on sea ice and assess the risks associated with various ice conditions. Moreover, the candidate should be able to perform self-rescue and companion rescue in the event of an accident or ice breakthrough.

### Description of course content

- Ice formation
- Sea ice
- Effects of weather, currents and underwater topography
- Self-rescue
- Companion rescue
- Safe travel routines and best practices on sea ice

### Learning objectives

Knowledge	<i>The candidate:</i>	
	SjK1	Is familiar with basic conditions related to the formation of sea ice
	SjK2	Has knowledge of how sea ice is affected by weather and current conditions
	SjK3	Understands how ice thickness and quality influence load-bearing capacity and travel
	SjK4	Is familiar with special local conditions related to the fjords on Nordenskiöld Land*
	SjK5	Is familiar with how to recognize hazardous areas



	<p>SjK6 Has knowledge of planning and execution of safe travel on sea ice, including relevant rescue equipment</p> <p>SjK7 Has knowledge of principles for companion rescue on sea ice</p>
Skills	<p><i>The candidate:</i></p> <p>SjF1 Can gather relevant information for evaluating sea ice conditions</p> <p>SjF2 Can use relevant methods to measure and assess the thickness and quality of sea ice</p> <p>SjF3 Can explain practical navigation and leadership of travel on sea ice</p> <p>SjF4 Can explain the use of personal rescue equipment and equipment for companion rescue</p> <p>SjF5 Can lead and perform a companion rescue on sea ice</p>
General competence	<p><i>The candidate:</i></p> <p>SjG1 Can plan and lead trips on sea ice in a safe manner</p> <p>SjG2 Can lead a companion rescue on sea ice and care for a patient until the rescue service arrives</p>

\* The practical course must cover all the learning objectives that are not specific to Svalbard. Learning objectives unique to Svalbard will be covered in the digital module and the assessment module.



### 3. Field course required for final approval

The approval courses aim to apply and integrate the knowledge and skills the candidate has acquired through the digital module and practical courses. They focus on scenario-based training and plenary discussions, combining several topics to simulate complex and realistic situations.

Plenary discussions are a key method of learning and assessment. They are designed to evaluate candidates' understanding, reflective skills and ability to apply knowledge across interdisciplinary contexts.

Scenario-based exercises integrate several subject areas in realistic and complex situations. They are designed to replicate conditions and challenges the candidate may encounter in the field. Moreover, they form the basis for assessing technical skills and decision-making ability.

#### 3.1 Field course required for final approval – summer

The course lasts three days and includes one night in the field. It must be conducted in Svalbard.

The purpose of the course is to assess the candidates' theoretical knowledge and practical skills in relevant subject areas. The assessment is conducted through plenary discussions and scenario-based exercises that integrate elements from several courses. The exercises are designed to evaluate the candidates' ability to analyse, assess and manage complex situations under realistic field conditions.

**The course covers three main topics:**

- Trip planning
- Assessment of terrain and relevant hazards
- Management of accidents and incidents

**The course is designed to cover the following learning objectives:**

Safety management	RF2: Can carry out a simple risk analysis of a trip
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	<p>RF4: Can apply models for operationalisation of trip planning</p> <p>RG1: Can apply relevant information from safety management documents to trip planning</p> <p>RG2: Can propose appropriate risk mitigation measures based on a risk analysis</p>
Nature and environment	<p>MG1: Can use relevant legal sources for lawful travel in trip planning, including digital tools and map databases</p> <p>MG 2: Can apply and communicate knowledge of flora, fauna, cultural heritage and the natural environment when conducting guided trips to ensure that travel, activities or stays do not cause damage to or disturbance of the natural environment and cultural heritage.</p>
Weather and climate	<p>VF1: Can explain and interpret relevant weather data and weather signs</p> <p>VG1: Can use relevant information sources for weather in the planning of trips</p>
Emergency shelters	<p>CG1: Can take care of a group in an emergency until the group can be evacuated</p> <p>CG2: Can assess which emergency equipment is relevant for the planned activity</p>
Navigation and communication	<p>KF1: Can use relevant communication equipment (satellite phone, PLB, VHF and Inreach)</p> <p>KF2: Can navigate using a GPS and is familiar with the limitations of GPS devices</p> <p>KF3: Can perform basic navigation with map and compass (bearing and map reference)</p>



	<p>KG1: Can apply relevant map data to plan travel</p> <p>KG2: Can adapt the choice of communication and navigation equipment based on the length and destination of the trip</p>
First aid	<p>FF7: Can select and adapt relevant first aid equipment to the duration of the trip, participant group, type of activity and risk profile</p> <p>FG1: Can take command at an incident scene following basic principles to ensure the safety of oneself, the group and the patient</p> <p>FG2: Can perform necessary first aid to stabilise a patient and keep them warm until rescue personnel arrive</p> <p>FG3: Can prepare the patient for evacuation and give a status report from the incident scene to organised rescue services</p>
Polar bear safety	<p>IG1: Demonstrates safe weapon handling with a rifle and signal pistol in all relevant situations</p> <p>IG2: Can communicate knowledge about polar bears in a manner that contributes to guests understanding the need for safe and preventive behaviour</p> <p>IG3: Can apply knowledge about the biology, behaviour, distribution and ecology of polar bears to plan and execute travel in the safest possible way to avoid conflict with polar bears, including:        On foot        On skis        In cabins        In tent camps        During landing operations</p> <p>IG4: Can lead a group in encounters with polar bears and use their knowledge and skills to avert a conflict situation and prevent injury to the guests or polar bear</p>



### 3.2 Field course required for final approval – winter

The course lasts four days and includes two nights in the field. It must be conducted in Svalbard.

The purpose of the course is to assess the candidates' theoretical knowledge and practical skills in relevant subject areas. The assessment is conducted through plenary discussions and scenario-based exercises that integrate elements from several courses. The exercises are designed to evaluate the candidates' ability to analyse, assess and manage complex situations under realistic winter conditions.

**The course covers three main topics:**

- Trip planning
- Assessment of terrain and relevant hazards
- Management of accidents and incidents

**The course is designed to cover the following learning objectives:**

Safety management	RF2: Can carry out a simple risk analysis of a trip  RF4: Can apply models for operationalisation of trip planning  RG1: Can apply relevant information from safety management documents to trip planning  RG2: Can propose appropriate risk mitigation measures based on a risk analysis
Nature and environment	MG1: Can use relevant legal sources for lawful travel in trip planning, including digital tools and map databases  MG 2: Can apply and communicate knowledge of flora, fauna, cultural heritage and the natural environment when conducting guided trips to ensure that travel, activities or stays do not cause



	<p>damage to or disturbance of the natural environment and cultural heritage.</p>
Weather and climate	<p>VF1: Can explain and interpret relevant weather data and weather signs</p> <p>VG1: Can use relevant information sources for weather in the planning of trips</p>
Emergency shelters	<p>CG1: Can take care of a group in an emergency until the group can be evacuated</p> <p>CG2: Can assess which emergency equipment is relevant for the planned activity</p>
Navigation and communication	<p>KF1: Can use relevant communication equipment (satellite phone, PLB, VHF and Inreach)</p> <p>KF2: Can navigate using a GPS and is familiar with the limitations of GPS devices</p> <p>KF3: Can perform basic navigation with map and compass (bearing and map reference)</p> <p>KG1: Can apply relevant map data to plan travel</p> <p>KG2: Can adapt the choice of communication and navigation equipment based on the length and destination of the trip</p>
First aid	<p>FF7: Can select and adapt relevant first aid equipment to the duration of the trip, participant group, type of activity and risk profile</p> <p>FG1: Can take command at an incident scene following basic principles to ensure the safety of oneself, the group and the patient</p> <p>FG2: Can perform necessary first aid to stabilise a patient and keep them warm until rescue personnel arrive</p>



	<p>FG3: Can prepare the patient for evacuation and give a status report from the incident scene to organised rescue services</p>
Polar bear safety	<p>IG1: Demonstrates safe weapon handling with a rifle and signal pistol in all relevant situations</p> <p>IG2: Can communicate knowledge about polar bears in a manner that contributes to guests understanding the need for safe and preventive behaviour</p> <p>IG3: Can apply knowledge about the biology, behaviour, distribution and ecology of polar bears to plan and execute travel in the safest possible way to avoid conflict with polar bears, including:  On foot  On skis  In cabins  In tent camps  During landing operations</p> <p>IG4: Can lead a group in encounters with polar bears and use their knowledge and skills to avert a conflict situation and prevent injury to the guests or polar bear</p>
Travel in avalanche-prone terrain	<p>SkG1: Can plan and execute a trip based on knowledge of the local conditions, weather forecast, snow conditions, terrain and avalanche forecast</p> <p>SkG2: Can plan and lead trips in the Svalbard wilderness in a way that avoids unnecessary exposure</p> <p>SkG3: Can carry out and lead a search and rescue operation for one or more avalanche victims</p>
Travel on glaciers	<p>BG1: Can plan and lead trips on glaciers, including gathering information, planning the route and providing guidance about routines and travel</p>



	BG2: Can lead the securing and companion rescue of a patient on a snow-covered glacier
Travel on sea ice	<p>SjG1: Can plan and lead trips on sea ice in a safe manner</p> <p>SjG2: Can lead a companion rescue on sea ice and care for a patient until the rescue service arrives</p>

### 3.3 Expected competence of participants on the field course required for final approval

Points 1-4 below, along with the accompanying comments, describe the competence expected of candidates during the Field course required for final approval. These descriptions constitute what may be regarded as the required standard.

Significant deviations from this standard mean that the candidate is assessed as *slightly below, below, slightly above* or *above* the required standard.

Each sub-point within the different competence areas may be elaborated on in the comment field of the table where relevant. An overall assessment must be given for each area of competence.

An overall assessment of *below the required standard* means that, at the time of assessment, the candidate is not considered suitable to be given responsibility as a guide.

#### 1. Ability to take care of oneself and one's equipment under demanding field conditions

This includes the candidate's ability to maintain their own health, safety and functional capacity, including:

- Nutrition (consume sufficient food and fluids to function adequately)



- Hygiene (maintain personal hygiene to prevent illness or infection)
- Mental factors (mood, mental energy and ability to rest)
- Maintenance and control of personal equipment
- Clothing appropriate to weather and field conditions
- Injury prevention measures (including cold-related and overuse injuries)

Standard:

*The candidate must be able to maintain themselves and their equipment in a manner that enables them to perform effectively as a responsible guide within the group, while contributing as a resource when not acting in a leadership role.*

## 2. Leadership of the group as a guide

This includes the candidate's ability to exercise safe and responsible leadership in the field, including:

- Judgement
- Decision-making
- Stress management
- Ability to show care, motivate and look after participants
- Ability and willingness to make safe and well-reasoned decisions

Standard:

*The candidate must be able to lead the group in a way that ensures all safety considerations are maintained under field conditions in Svalbard. The candidate must be able to adapt activities and route selections in accordance with the overall capabilities of the group. Moreover, the candidate should demonstrate care and support for group participants and contribute to the group's ability to successfully complete tasks*

## 3. Professional competence

This includes the candidate's ability to apply theoretical knowledge and practical skills in real situations:

- Demonstrate competence in the requirements outlined in the course modules



- Apply knowledge and skills in the practical execution of the job as a guide

Standard:

*The candidate must be able to apply and demonstrate basic knowledge and skills from the learning objectives in the modules during the field course required for final approval through integrated case exercises.*

#### 4. Communication skills

This includes the candidate's ability to communicate relevant information to the group, particularly concerning safety and consideration for the natural environment:

- Ability to communicate knowledge about the natural environment, including safety, experience and environmental considerations
- Ability to provide information about safety considerations and the execution of the trip in a clear and understandable manner

Standard:

*The candidate must be able to communicate knowledge about safety-related matters and the natural environment in a manner that ensures the group is prepared for potential challenges and the participants are well informed at all times.*

### 3.4 Final assessment

The combination of scenario-based training and plenary discussions enables the candidate to be assessed in the role of guide, while this method also promotes reflection and experience sharing among the participants. Through these activities, the candidate's ability to plan, lead, cooperate and make well-reasoned decisions under varying and challenging conditions are assessed.

The candidates will be assessed continuously throughout the course, including in the role of guide and as a participant in the group.



**The assessment covers the following main topics:**

- Ability to take care of oneself and one’s equipment under demanding field conditions
- Leadership of the group as a guide
- Professional competence
- Communication skills

**Basis for assessment and the standard descriptions**

The assessment of the candidates is based on a defined standard that describes the expected competence, behaviour and professional practice. This standard forms the basis for an overall assessment of the candidate’s suitability for work as a guide.

**The following assessment scale is used:**

<b>Standard:</b>	The candidate demonstrates overall competence and behaviour consistent with the required standard and appropriate for the situation the group is in or has been in.
<b>Slightly above the required standard:</b>	The candidate demonstrates skills and behaviour in certain areas that exceed the required standard.
<b>Above the required standard:</b>	The candidate demonstrates behaviour and competence that significantly exceed the standard and what can reasonably be expected under the given circumstances.
<b>Slightly below the required standard:</b>	The candidate has some areas for improvement compared to the required standard but is still assessed as qualified for work as a guide. The areas for improvement are outlined on the assessment form.
<b>Below the required standard:</b>	The candidate has significant deficiencies in relation to the required standard and is assessed as unsuitable for work as a guide.



	The areas for improvement are outlined on the assessment form.
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Candidates assessed overall to be *below the required standard* will be not pass the course.