

# Syllabus

for course at advanced level

**Polar and Alpine Environments and Climate Change**

**Polara och alpina miljöer och klimatförändringar**

**15.0 Higher Education**

**Credits**

**15.0 ECTS credits**

<b>Course code:</b>	GE7079
<b>Valid from:</b>	Autumn 2021
<b>Date of approval:</b>	2019-01-14
<b>Changed:</b>	2020-11-09
<b>Department</b>	Department of Physical Geography
<b>Main field:</b>	Physical Geography and Quaternary Geology
<b>Specialisation:</b>	A1N - Second cycle, has only first-cycle course/s as entry requirements

## Decision

This course syllabus was approved by the Board of Science at Stockholm University on 14/01/2019 and 17/08/2020.

## Prerequisites and special admittance requirements

For admission to the course, knowledge is required equivalent to 90 ECTS credits in biology-earth sciences, geography, Earth sciences.

English B/English 6 or the equivalent.

## Course structure

Examination code	Name	Higher Education Credits
MOM1	Excursion	4
MOM2	Theory	11

## Course content

a. The course addresses the climate and environmental aspects, biogeography, glaciology, geomorphology and geology of the polar and alpine areas. The main focus is on ongoing climate change and landscape development during the Quaternary.

b. The course consists of the following modules:

1. Excursion (Exkursion), 3 credits
2. Theory (Teori), 12 credits

## Learning outcomes

After completing the course, the student is expected to be able to:

- describe, interpret and explain the natural conditions of polar and alpine environments (module 1 and module 2)
- identify, interpret and describe the natural processes that operate in the cryosphere and how they interact with the biosphere (module 1 and module 2)
- describe the function of the global climate system and natural and anthropogenic causes for climate change (module 2)
- analyse glacial environments and processes (module 1 and module 2)
- describe landforms and explain processes for their formation (module 1 and module 2)
- describe and explain Quaternary climate and environmental evolution (module 1 and module 2)

- explain the interaction between climate processes, geomorphological processes and glacial processes (module 1 and module 2).

### **Education**

Instruction consists of field trips, lectures, seminars, exercises and project.

Instructions are in English.

### **Forms of examination**

a. The course is examined in the following manner:

- Assessment of module 1 takes place through written presentations
- Assessment of module 2 takes place through written and oral presentations

The examiner can decide on adapted or alternative examination formats for students with disabilities.

Late submission of the individual assignment/take-home examination has consequences for the final grade of the course. These consequences are described in detail in the grading criteria of the course

Examination is in English.

b. A passing final grade requires participation in field trips, seminars, and exercises. If special reasons exist, following consultation with the teacher involved, the examiner may grant the student exemption from the obligation to participate in certain compulsory instruction.

c. Grading: The course's final grade is set according to a seven-point criterion-referenced scale:

A = Excellent

B = Very good

C = Good

D = Satisfactory

E = Adequate

Fx = Failed, some additional work is required

F = Failed, much additional work is required

Grades of module 1 and module 2 will be set according to a seven-point criterion-referenced scale.

The final grade of the course is determined by weighing the grades from all course modules, where each grade is weighed in relation to the scope of the course modules.

d. The course's grading criteria are handed out at the start of the course.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board. The course includes at least three examination opportunities per academic year the course is offered. For the academic years that the course is not offered, at least one examination opportunity is offered

f. There is no possibility to improve the grade Fx to a pass grade in this course.

### **Interim**

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two-year period after the course was discontinued. Requests must be made to the departmental board. The provision also applies in the case of revisions of the course syllabus and revisions of the required reading.

### **Limitations**

The course may not be included in examinations in combination with course Quaternary Climate History (GE7056), Climate and Landscape (GE7072) or equivalent.

### **Misc**

The course is part of Master's Programme in Polar Landscapes and Quaternary Climate but can also be read

as a separate course. The course include teaching in the field, which may entail additional cost for the student.

**Required reading**

The course literature is decided by the department board and published on the Department of Physical Geography's website at least two months before the start of the course.