

# Syllabus

for course at advanced level

**Glaciology**  
**Glaciologi**

**7.5 Higher Education  
Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	GE7092
<b>Valid from:</b>	Spring 2022
<b>Date of approval:</b>	2020-06-17
<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 17/06/2021.

## Prerequisites and special admittance requirements

For admission to the course, knowledge is required equivalent to a bachelor's degree in biology-earth sciences, geography, Earth sciences or physical geography.

Alternatively, 15 credits from the Master's program in polar landscapes and Quaternary climates.

English 6 or equivalent.

## Course structure

Examination code	Name	Higher Education Credits
HELA	Glaciology	7.5

## Course content

This course addresses processes that control the dynamics of glaciers and ice sheets in time and space. More specifically, the course aims to examine:

- Mass balance of glaciers and ice sheets, and especially their relation to climate; Ice mechanical processes and their importance for glacier and ice sheet dynamics
- Glacial processes, especially in relation to landscape development
- Ice sheet growth and change over time
- Glacial hydrology

## Learning outcomes

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

- explain the effect of climate on the mass balance, motion and distribution of glaciers
- describe and explain the physical behaviour of ice sheets in relation to regional and global climate and to climate change
- relate the physical properties of glaciers (including glacial hydrology) to landform-building processes

## Education

Instruction consists of lectures, seminars and exercises.

The course is offered in English.

### **Forms of examination**

a. The course is examined as follows: Assessment takes place through written and oral exams, and through oral exams of exercises and seminars.

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

The examination will be conducted in English.

b. A passing final grade requires participation in 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

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 in the normal case 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. Students awarded the grade Fx are given the opportunity to improve their grade to E. The examiner decides on the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination opportunity.

### **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**

This course may not be included in a degree together with the courses Glaciers and Permafrost (GE7003), Glaciology (GE7052) or equivalent.

### **Misc**

This course is part (elective course) of the Master's Programme in Geomatics with Remote Sensing and GIS but can also be read as a separate course.

### **Required reading**

The required reading is decided by the department board and published on the course catalog at least 2 months before the start of the course.