

# Syllabus

for course at advanced level

**Glaciology**  
**Glaciologi**

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

<b>Course code:</b>	GE7052
<b>Valid from:</b>	Autumn 2019
<b>Date of approval:</b>	2012-08-27
<b>Changed:</b>	2014-11-17
<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 syllabus has been approved by the Board of the Faculty of Science at Stockholm University 2012-08-27 and revised 2014-11-17.

## Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to at least 90 ECTS credits in biology-earth sciences, geography, Earth sciences. Also required is knowledge equivalent to Swedish upper secondary school courses Mathematics D and English B/English 6.

## Course structure

Examination code	Name	Higher Education Credits
HELA	Glaciology	7.5

## Course content

The course covers 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 the course, students are expected 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.

Participation in seminars and exercises and any associated integrated instruction is compulsory. In the event of special circumstances, the examiner may, after consultation with the teacher concerned, grant a student exemption from the obligation to participate in certain compulsory instruction.

Instructions are in English.

### **Forms of examination**

a. The course is examined as follows: Measurement of knowledge takes place through:

- written examination.
- written and oral presentations of exercises and seminars.

Examination is in English.

b. Grades are assigned according to a seven-point goal-related grading scale:

A = Excellent

B = Very good

C = Good

D = Satisfactory

E = Sufficient

Fx = Fail (more work required before credit can be awarded)

F = Total fail

c. The grading criteria will be distributed at the beginning of the course.

d. To be awarded a pass, the minimum grade E is required and participation in all compulsory education.

e. Students who fail an ordinary examination are entitled to sit additional examinations as long as the course is offered. There is no restriction on the number of examinations. Examinations also include other obligatory elements of the course. Students who have passed an examination may not resit it in order to achieve a higher grade. Students who have failed on two occasions are entitled to request the appointment of a different examiner for the next examination. Any such request must be made to the departmental board.

The course has at least two examinations for each academic year in the years in which instruction is provided. Intervening years include at least one examination.

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

### **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 course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan.

### **Limitations**

The course may not be included in examinations in combination with course Glaciers and Permafrost (GE7003) or equivalent.

### **Misc**

The course is part of Master's Programme in Master's Programme in Glaciology and Polar Environments, but can also be read as a separate course.

### **Required reading**

Course literature is decided by the departmental board and described thereafter in an appendix to the course plan.