



DEPARTMENT OF EARTH SCIENCES

NG0220 Climate Change and Society, 15 credits

Klimatförändringar och samhället, 15 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2010-09-29 and was last revised on 2024-02-06 to be valid from 2024-03-21, spring semester of 2024.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course includes 15 credits at the undergraduate level with a specialisation in Climatology. The course is also offered as an elective course subject to availability.

The course can be part of the following programmes: 1) Atmosphere, Climate and Ecosystems, Master's Programme (N2ACE), 2) Bachelor's Programme in Earth Sciences (N1GVS), 3) Environmental Sciences (N2MVN) and 4) Bachelor's Programme in Geography (N1GEO)

Main field of studies

Earth Sciences

Specialization

G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Entry requirements

Admission to the course requires 60 credits in either Earth Sciences, Geography, Environmental Sciences or equivalent.

Applicants from outside Scandinavia or from a university where the language of instructions is not English must demonstrate proficiency in English through TOEFL-test or IELTS-test. The following result should have been achieved: TOEFL with 600 credits (computerised test: 250 credits, Internet test: 100 credits), or IELTS with 6.0 credits and at least 6.5 credits in the written part of the test.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- about basic historical, current and future theories of climate change in the world.
- different climate models and scenarios, as well as their reliability.
- how the society is adapting to a changing climate in Sweden and abroad.

Competence and skills

- use modern climatological and geographical examination methods.

Judgement and approach

- make objective analyses of the impact of climate change on Swedish society as well as in other countries.

The course is sustainability-focused, which means that at least one of the learning outcomes clearly shows that the course content meets at least one of the University of Gothenburg's confirmed sustainability criteria. The content also constitutes the course's main focus.

Course content

The course consists of three modules:

Sub-courses

1. Theory (*Teori*), 5 credits

Grading scale: Pass with Distinction (VG), Pass (G) and Fail (U)

The module intends to provide students with knowledge of the historical, current and future status in terms of climate change and its impact on society. The module also contains basic knowledge of climate reconstruction and climate modeling, and how society uses climate information including scenarios to plan for adaptation to a changed climate.

A focus is made on highlighting how changes in local climate (e.g. temperature and precipitation) influence urban and rural societies in different parts of the world and how these societies adapt to climate changes.

2. Field trip for case studies (*Exkursion*), 5 credits

Grading scale: Pass (G) and Fail (U)

The students will work with different issues ("case study") related to the course

content. The aim is to give students the opportunity to observe climate perspectives in a region affected by environmental and climate change. Students will apply the theoretical knowledge and present issues related to the course content. Before, during, and probably also after the field trip, information and data will be collected that will be used in the group assignment.

Participation in the field trip, requiring a financial contribution, according to department policy, is optional. The students, who choose not to participate in the field trip will have to do a special project at home. The focus will lie on how Gothenburg plans for a changing climate, and compares this with an optional region with different perspectives on climate from those found in Sweden.

3. **Group assignment** (*Projektarbete*), 5 credits

Grading scale: Pass (G) and Fail (U)

The group assignment is based on a case study of how a city or region in Sweden or elsewhere is affected by and plan for a changed climate. The data collected in modules 1 and 2 are analyzed, compiled and presented both orally and in writing.

Form of teaching

The teaching consists of lectures, compulsory exercises and seminars, a group assignment that is presented orally and in writing as well as a field trip.

Language of instruction: English

Assessment

Component 1 Theory (Theory) Written examination, 5 credits: Fail/Pass/Pass with distinction

Component 2 Field trip (Excursion), 5 credits: Fail/Pass

Component 3 Project Work (Project Work), 5 credits: Fail/Pass

Students who do not participate in the excursion are required to actively work on their project work during the same period.

If a student who has twice received a failing grade for the same examination component wishes to change examiner ahead of the next examination session, such a request should be made to the department in writing and should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for study support for students with disabilities, the examiner may, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources

are required, decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years after the course has ceased/been changed. The same applies to internships and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

In order to receive a passing grade for the course, all components, including compulsory ones, must have a passing grade. To obtain a Pass with Distinction on the course, the grade Pass with Distinction is required on the written exam.

Course evaluation

The students are given the opportunity to make an anonymous written evaluation of the course.

The results of and possible changes to the course will be shared with students who participated in the evaluation and students who are starting the course.

Additional information

The travel to the field trip destination is paid for by the student (transport T/R + 200 SEK/day, according to the department's policy).

Students admitted to N1GVS Bachelor's Programme in Earth Sciences and N1GEO Bachelor's Programme in Geography, are given priority for admission to the course.