



DEPARTMENT OF EARTH SCIENCES

NG0230 Climate Change, a Geographical Perspective, 15 credits

Klimatförändringar ur ett geografiskt perspektiv, 15 högskolepoäng

First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2009-09-28 and was last revised on 2019-06-10 to be valid from 2019-09-01, autumn semester of 2019.

Field of education: Science 100%

Department: Department of Earth Sciences

Position in the educational system

The course is included in the Bachelor's programme in earth sciences with specialisation in climatology and in the Bachelor's programme for geography. It can also be read as a freestanding course.

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

Main field of studies

Earth Sciences

Geography

Specialization

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

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Entry requirements

60 credits either in earth sciences, geography, environmental sciences, biology or the equivalent.

Learning outcomes

After having completed the course the student is expected to be able to:

Knowledge and understanding

- describe general regional climate characteristics
- describe geographic challenges with regard to different resources from regional to global level
- describe how man and the environment are influenced regionally of a changed environment in a general perspective

Competence and skills

- describe specific phenomena connected to climate and environmental changes that are considered have large effect on nature and society
- analyse data connected to climate and environmental changes with simple statistical tools and GIS
- synthesis of theoretical knowledge and application to a place or region
- compilation and presentation of results in speech and writing

Judgement and approach

- objectively analyse of climate change at regional and global level by using relevant processes

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 that includes full-time studies on daytime consists of four components that should contribute to achieve the intended learning outcomes of the course in full.

Component 1: Theory (7.5 credits) the Course treats how climate and environmental changes influence man and the environment in different regions from the Arctic to the Tropics. For the different climate zones large-scale climate patterns and change are discussed. A number of specific issues such as availability and use of water resources, desertification, ocean acidification, migration, pollution, urbanisation and its effects on

the society will be discussed. Strong emphasis is put on processes and interactions in geographic context.

Component 2: Field trip to the Mediterranean (2.5 credits). The students extend their theoretical knowledge through observations in the field and visiting stakeholders and apply theoretical knowledge on a region and present topics related to the course content. The chosen region is strongly affected by environmental and climate change and constitutes an excellent study field. Certain data collection for the project work can occur.

Component 3: Data analysis. In computer exercises we learn how to find and gather relevant climate and environmental data and will carry out basic analysis and visualisation using Excel and GIS.

Component 4: Project Work in groups (4 credits). In the project work a topic related to the course contents and the interest of the students is investigated involving literature studies, data gathering, analysis, visualisation and presentation in written (report) and oral form.

Form of teaching

Teaching consists of lectures, seminars, supervised computer exercises, a field trip and a project work in groups. Discussion based on literature is an important part of the course.

Language of instruction: English

Assessment

Written examination (Theory) 7.5 credits Fail/Pass/V

Field trip (Excursion) 2.5 credits Fail/Pass

Data analysis (Data Analysis) 1 credit in Fail/Pass

Project Work (Project Work) 4 credits Fail/Pass

If special circumstances apply, examiner can admit other examination format than what is stated in the test parts.

To achieve a Pass grade in the course or individual test part, supplementary assignment can be offered after assessment and decision of examiner.

A student who has failed a test twice has the right to change examiner, unless weighty argument can be adduced. The application shall be sent to the board of the department and has to be in writing.

In cases where a course has been discontinued or undergone major changes, the student should be guaranteed access to at least three examination sessions based on the earlier planning of the course (including regular examination session) during a period of at least one year.

Grades

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

Course grade is assigned, when all components are passed and following the grade for the theory element.

Course evaluation

The result and any changes to the structure of the course should be communicated both to the students who carried out the evaluation and to the students who are to start the course.

Additional information

The field trip leads to additional costs for the student (can possibly be covered by scholarships). Degree programme students on N1GEO and N1GVS have precedence to the course.