



**LUND**  
UNIVERSITY

Faculty of Science

## NGEA26, Physical Geography and Ecosystem Sciences: Climate Now, 5 credits

*Naturgeografi och ekosystemvetenskap: Klimatet nu, 5  
högskolepoäng*  
First Cycle / Grundnivå

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### Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2020-12-08 to be valid from 2020-12-08, autumn semester 2021.

### General Information

The course is a compulsory course for second-cycle qualification in the specialisation "Nordic master's programme in environmental changes at higher latitudes" (EnCHiL). The course is given in collaboration with the partner universities included in this nordic cooperation. The course is given with teaching both at distance and on campus in Lund. The course is only available for students admitted to the specialisation in "Nordic master's programme in environmental changes at higher latitudes".

*Language of instruction:* English

*Main field of studies*

Physical Geography and Ecosystem  
Science

*Depth of study relative to the degree  
requirements*

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

### Learning outcomes

The aim of the course is that the student, on completion of the course, should have basic knowledge of climate changes and their influence on natural ecosystems as well as processes in society from a general perspective.

### Knowledge and understanding

On completion of the course, the student shall be able to:

- Give an account of how knowledge of climate changes and the processes that influence them is based on scientific results

- Explain the scientific background of how we observe climate changes, create climate scenarios for the future and how emission scenarios and feedback mechanisms influence these
- Give an account of how to describe effects of the ongoing climate change and carry out impact assessments for different sectors in society in the nordic countries

### **Competence and skills**

On completion of the course, the student shall be able to:

- Seek relevant information about consequences of the climate change in nordic environments with an emphasis on how different civil society functions will be influenced
- Apply the information in a relevant way to analyse consequences of climate change

### **Judgement and approach**

On completion of the course, the student shall be able to:

- Analyse the ongoing climate change and its consequences from different community perspectives and be able to tie together these to an overall view
- Suggest and evaluate solutions for different community challenges in a climate change perspective
- Reflect on her/his own role in the climate debate and apply the acquired knowledge in her/his own academic field
- Review different perspectives, sources of information and the ongoing climate change debate critically

### **Course content**

The course presents and analyses different aspects of the ongoing climate change and its underlying processes and consequences. The course focuses on four main issues:

- the scientific foundation of knowledge regarding the climate change; including the carbon cycle, greenhouse gases and climate modeling
- influence on different natural ecosystems and processes in society and their sensitivity and risks associated with the climate change
- possibilities to mitigation of climate change and its effects through different control instruments, e.g. carbon footprint, emission rights and energy systems.
- climate adaptation, social challenges and how the personal commitment can make a difference

The course content has his emphasis on social functions and personal commitment.

### **Course design**

The course consists of thematic modules that contain lectures with connected exercises that mainly are given as distance learning. Furthermore, each module contains seminars that are given on campus in Lund. During the course, the students create a learning portfolio. The course is completed with a more extensive project work that is carried out in groups. Attendance at all teaching components except pre-recorded video lectures is compulsory.

## **Assessment**

Examination takes place in writing in the form of a learning portfolio at the end of the course, and through written assignments and compulsory exercises during the course and a final project work. For students who have not passed the regular examination, additional occasion in close connection to this is offered.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## **Grades**

Marking scale: Fail, Pass, Pass with distinction.

A Pass grade for the entire course requires passed learning portfolio and passed exercise and written assignments and passed project work. The final grade is decided through a joint assessment of the results of the examining components and the project report in proportion to their extent (see appendix).

## **Entry requirements**

Entry to the course requires 90 credits in scientific or social sciences studies at university level.

Subcourses in NGEA26, Physical Geography and Ecosystem Sciences:  
Climate Now

Applies from H21

2101 Physical Geography and Ecosystem Sciences: Climate Now, 5,0 hp  
Grading scale: Fail, Pass, Pass with distinction