Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01 to be valid from 2007-07-01, autumn semester 2007.

General Information

Language of instruction: English

Main field of studies

Physical Geography

Depth of study relative to the degree requirements

A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

The course intends to provide advanced knowledge about observed and future climate changes influence on the environment.

On completion of the course, the student is expected to be able to:

- have good knowledge of observed climate variations in a perspective stretching over centuries,
- have good fundamental knowledge of climate models as tool to study climate changes
- have good knowledge how climate changes influence different ecosystem
- have good knowledge of feedback mechanisms i.e. how ecosystem influences climate conditions
- have good knowledge how climate changes can be detected in observations and data and in model scenarios
- understand how modelling tools can be used for studies of the effects of climate changes
• have ability to review and evaluate information and statements concerning future climate changes critically.

**Course content**

Strong emphasis is attached to study the causalities that can explain the variations and changes of the climate. Model scenarios are used to study global and regional climate changes and possible effects on, for example, hydrology, water resources, ecosystem, ecosystem processes, biodiversity, bio-geography, wind energy and storm damages. Methods for detection of climate changes are treated. In the teaching, observation data and model scenarios are used to train critical analysis of, e.g., data representativeness, model assumptions and validation against independent information.

**Course design**

The teaching consists of lectures, exercises, group assignments and project work. Exercises and group assignments are compulsory.

**Assessment**

The examination consists of a written examination at the end of the course and grading of oral and written reports on exercises and project work during the course. For students who have failed the regular examination, additional occasion in close connection to this is offered.
Further information

The course may not be included in a higher education qualification together with NGE611 The Climate change and its environmental effects, 10 credit points.
Subcourses in NGEN01, Physical Geography: Climate Change and its Impacts on the Environment

Applies from H07

0701  Climate Change and its Impacts on the Environment, 15,0 hp
     Grading scale: Fail, Pass, Pass with distinction