Climate Science and Policy

Single subject and programme course

15 credits

Climate Science and Policy

746A66

Valid from:

Determined by
The Quality Board at the Faculty of Arts and Sciences

Date determined
2010-12-17

Revision date
2016-02-02

Main field of study
Environmental Science

Course level
Second cycle

Advancement level
A1X

Course offered for
- Master´s Programme in Science for Sustainable Development

Entry requirements
Applicants must hold a bachelor's degree/kandidatexamen (equivalent for example a professional degree) of at least 180 ECTScredits, including a 15 ECTS credit degree paper or equivalent. Relevant background is studies within natural science, socialscience, health science, humanities or engineering that relate to the environmental, social or economic aspects of sustainabledevelopment. Documented knowledge of English equivalent to Engelska B/Engelska 6.

Prerequisites
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Documented knowledge of English equivalent to Engelska B/Engelska 6.

Intended learning outcomes
After completion of the course the student should be able to:
- understand the natural and anthropogenic driving forces shaping Earth's climate
- link biogeochemical carbon cycle to natural and anthropogenic interactions and climate change
- analyse feedback mechanisms for climate change and the evolution of the 'climate-culture' relationship
- model simple climate change scenarios using available data
- analyse the dynamics of international climate diplomacy
- critically assess multilevel and transnational climate governance initiatives
- formulate and critically evaluate low carbon development trajectories
- orally present and scrutinize individual and group assignments

Course content

The course is organised around two interlinked themes; i) Climate science and ii) Climate policy and governance. During the first theme the students situate climate science in a historical perspective (Archean-Anthropocene) and analyze the role of orbital movements, plate tectonics, insolation, and human-induced changes on climate. This theme includes laboratory exercises focusing on soil carbon storage and examines scientific data for modelling climate change and its impacts at local and global scales. During the second course theme the students address the political interpretation of and response to climate change at international and transnational levels. The students assess the dynamics of UN conference diplomacy, how climate adaptation and mitigation strategies are articulated and enacted across multiple levels of governance, and explore the potential of low carbon development pathways.

Teaching and working methods

The course combines a broad range of teaching forms including lectures, laboratory exercises, literature seminars and a role play. Language of instruction: English

Examination

The course contains written exam, oral and written presentation as well as a critical discussion on others' written work. The examination forms requires active participation in laboratory work, group work, and seminars. Detailed information can be found in the Study guide.

Students failing an exam covering either the entire course or part of the course twice are entitled to have a new examiner appointed for the reexamination.

Students who have passed an examination may not retake it in order to improve their grades.

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Grades

ECTS, EC

Other information

Planning and implementation of a course must take its starting point in the wording of the syllabus. The course evaluation included in each course must therefore take up the question how well the course agrees with the syllabus. The course is carried out in such a way that both men´s and women´s experience and knowledge is made visible and developed.

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Department

Institutionen för Tema