

# Syllabus

for course at first level

**Climate and General Circulation**  
**Klimat och allmänna cirkulationen**

**7.5 Higher Education**  
**Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	MO3008
<b>Valid from:</b>	Spring 2008
<b>Date of approval:</b>	2007-11-19
<b>Department</b>	Department of Meteorology
<b>Subject</b>	Meteorology

## Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University.

## Prerequisites and special admittance requirements

Knowledge corresponding to Atmospheric Radiation and Chemistry, 9 HECs (MO3004), Thermodynamics of the Atmosphere, 6 HECs (MO3003) and Dynamic Meteorology II, 7.5 HECs (MO3007).

## Course structure

Examination code	Name	Higher Education Credits
3008	Climate and General Circulation	7.5

## Course content

This course gives an introduction to the climate of the Earth and what governs it. You will learn about today's climate, historic climates as well as natural and anthropogenic climate change. This includes the energy balance of the Earth, the large-scale flow patterns of the oceans and the atmosphere, and the water, carbon and sulphur cycles. You will also learn how the climate is observed. International climate cooperation, through e.g. IPCC, is also discussed.

## Learning outcomes

After taking this course the student should be able to:

- account for the general circulation in the oceans and atmosphere and its interaction with essential biogeochemical cycles
- relate regional climate to the general circulation

## Education

The teaching consists of lectures, exercises, laborations and a project work. Participaton in laborations and the associated tutorials is compulsory. If there are special reasons, the Examiner may, after consulting the course teacher, allow the student to omit certain parts of the compulsory teaching.

## Forms of examination

a) Examination is done by a written and/or oral test. b) Grading is done on a seven-step scale: A=excellent B=Very good C=Good D=Satisfactory E=Sufficient F=Unsatisfactory Fx=Entirely unsatisfactory. c) The grading criteria are handed out at the beginning of the course. d) For passing the course, at least grade E is required, as well as passed oral and/or written presentations of laborations and participation in compulsory teaching. e) Students that do not pass the regular test have a right to attempt at least four further tests as long

as the course is given. As "tests" are understood also other compulsory parts of the course. Students that have passed a test are not allowed to attempt another test in order to receive a higher grade. Students that have failed an examination twice have a right to demand that another teacher is appointed to determine the grade. The request for this should be directed to the Board of the department.

**Interim**

Students may demand that the examination is performed according to this syllabus even after it has ceased to be valid. However, this may be done at most three times during the two years after the course was last given. The request for this should be directed to the Board of the department.

**Limitations**

The course may not be included in a degree together with Meteorology (ME2030).

**Misc**

The course is a part of the Bachelor's programme in Meteorology, but may also be taken as an individual course.

**Required reading**

The course literature is decided by the Board of the department, and is then presented in an attachment to the course syllabus.