

Syllabus

for course at first level

Dynamic Meteorology II
Dynamisk meteorologi II

**7.5 Higher Education
Credits**
7.5 ECTS credits

Course code:	MO3007
Valid from:	Spring 2008
Date of approval:	2007-11-19
Department	Department of Meteorology
Subject	Meteorology
Specialisation:	G2F - First cycle, has at least 60 credits in first-cycle course/s as entry requirements

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 Dynamic Meteorology I, 12 HECs, MO3006.

Course structure

Examination code	Name	Higher Education Credits
3007	Dynamic Meteorology II	7.5

Course content

The main purpose of this course is to understand the evolution of large-scale weather systems through baroclinic instability. As a preparation, the quasigeostrophic equations for atmospheric dynamics are first derived, and then a general method for analysing waves and instabilities by linearisation and Fourier analysis is introduced. The method is applied to Rossby waves and baroclinic instability.

Learning outcomes

After taking this course the student should be able to:

- apply theory to the large-scale dynamics of the atmosphere
- orally present weather situations and their connection to the theory of dynamical meteorology

Education

The teaching consists of lectures, exercises and laborations. 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 syllabys 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.