

Education plan

for

Bachelor's Programme in Meteorology
Kandidatprogram i meteorologi

180.0 Higher Education
Credits
180.0 ECTS credits

Programme code:	NMETK
Valid from:	Autumn 2016
Date of approval:	2007-09-19
Changed:	2016-02-29
Department:	Department of Meteorology

Decision

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

Prerequisites and special admittance requirements

Swedish upper secondary school courses Physics B, Chemistry A and Mathematics D, or equivalent.

Programme structure

Within the compulsory parts of the first two years of the programme, courses in Maths and Physics build the necessary foundation for applying Physics to the atmosphere. The first two years are identical to the other profiles in Physics. The third year consists of Meteorology courses.

Goals

For a Bachelor's degree with main subject Meteorology the student must show:

- knowledge and understanding of Meteorology including knowledge about the scientific basis, knowledge of applicable methods in the field, specialization in some part of the field and insight in current research
- ability to search for, collect, assess and critically interpret relevant information about a certain problem and critically discuss phenomena and topics within Meteorology
- ability to independently identify, formulate and solve problems, as well as carry out tasks within given time frames
- ability to orally and in writing account for and discuss information, problems and solutions in dialogue with other groups
- abilities required for working independently within the subject
- ability to make assessments with respect to relevant scientific, social and ethical aspects
- insight into the role of Meteorology in society and about mans' responsibility for how knowledge in Meteorology is used
- ability to identify the need for further personal knowledge and competence within the subject

Courses

Compulsory courses first year:

Mathematics for the Natural Sciences I, 15 hp (MM2002)
Mathematics for the Natural Sciences II, 15 hp (MM4001)
Classical physics, 30 hp (FK3014)*

Compulsory courses second year:

Mathematics II - Analysis, part A, 7.5hp (MM5010)

Mathematics II - Analysis, part B, 7.5hp (MM5011)
Mathematics II - Linear algebra, 7.5hp, (MM5012)
Programming, numerical methods and statistics for physicists, 15 hp (FK4026)
Electromagnetism and waves, 7.5 hp (FK5019)
Quantum mechanics, 7.5 hp (FK5020)
Experimental physics, 7.5 hp (FK5021)

Compulsory courses third year:

Atmospheric physics and chemistry, 30 hp (MO4000)*
Climate and atmospheric circulation, 15 hp*
Meteorology, degree project, 15 hp (MO6001)*

*)Courses within the main field of study

Degree

Bachelor's degree.

Misc

The language of instruction may be English for some compulsory courses. If the teaching is in English also the examination can be conducted in English.

Students that are admitted to the programme may request to finish the programme according to this syllabus even after it has ceased to be valid. In that case the limitations stated in the syllabus for the courses within the programme apply.

The programme is offered in collaboration with: Department of Mathematics, Department of Physics, Department of Numerical Analysis and Computer Science, Department of Astronomy, Department of Applied Environmental Science, Department of Biochemistry and Biophysics and Department of Mathematics and Science Education.