

Education plan

for

Master's Programme in Geological Sciences
Masterprogram i geologiska vetenskaper

**120.0 Higher Education
Credits**
120.0 ECTS credits

Programme code: NMGEO
Valid from: Autumn 2019
Date of approval: 2019-01-30
Department: Department of Geological Sciences

Decision

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

Prerequisites and special admittance requirements

Admission to the program requires knowledge equivalent to a bachelor's degree, with at least 90 credits in geology or earth science, environmental science, or oceanography. English 6 or equivalent.

Programme structure

The program comprises a total of 120 credit points. The program has three specializations, in geology, geochemistry, and marine geology. Each specialization includes 22.5 credit points of compulsory courses, an independent project that comprises 30, 45, or 60 credit points, 30 credits of optional courses, and depending on the credits for the independent project, elective courses comprising 7.5, 22.5, or 37.5 credit points.

Goals

For the Master's exam the student has to

- demonstrate knowledge and understanding in their main field of study, including both broad knowledge in the field and substantially deeper knowledge of certain parts of the field, together with deeper insight into current research and development work; and - demonstrate deeper methodological knowledge in their main field of study.
- demonstrate an ability to critically and systematically integrate knowledge and to analyse, assess and deal with complex phenomena, issues and situations, even when limited information is available;
- demonstrate an ability to critically, independently and creatively identify and formulate issues and to plan and, using appropriate methods, carry out advanced tasks within specified time limits, so as to contribute to the development of knowledge and to evaluate this work;
- demonstrate an ability to clearly present and discuss their conclusions and the knowledge and arguments behind them, in dialogue with different groups, orally and in writing, in national and international contexts;
- demonstrate the skill required to participate in research and development work or to work independently in other advanced contexts;
- demonstrate an ability to make assessments in their main field of study, taking into account relevant scientific, social and ethical aspects, and demonstrate an awareness of ethical aspects of research and development work;
- demonstrate insight into the potential and limitations of science, its role in society and people's responsibility for how it is used; and - demonstrate an ability to identify their need of further knowledge and to take responsibility for developing their knowledge.

Courses

Specialization geology:

Compulsory courses: 22.5 credit points

The Geoscientific Method (7.5 credit points) GG7007, Geodynamics GG8116 or Ore Geology GG8117, Field studies in the Geological Sciences (7.5 credit points) GG7014. Independent research with the field of geological sciences of at least 30 credit points and at the maximum 60 credit points.

Specialization geochemistry:

Compulsory courses: 22.5 credit points

The Geoscientific Method (7.5 credit points) GG7007, Applied Environmental Geochemistry (7.5 credit points), Isotope Geology (7.5 credit points).

Independent research with the field of geological sciences of at least 30 credit points and at the maximum 60 credit points.

Specialization marine geology:

Compulsory courses: 22.5 credit points

The Geoscientific Method (7.5 credit points) GG7007, Marine Geotechnics (7.5 credit points), Palaeoclimatology (7.5 credit points).

Independent research with the field of geological sciences of at least 30 credit points and at the maximum 60 credit points.

Elective courses comprise 7,5, 22,5, or 37,5 creditpoints in all three specializations depending on the credit points for the independent project.

The elective courses are decided by the department board. The list of all elective courses is updated before each new academic year. Optional courses comprise 30 credit points at the maximum.

Degree

Master degree (2 Years)

Misc

Students who have been admitted to the programme but not completed it during the scheduled two years can request to complete the program even after the programme syllabus no longer applies. In such cases, the limitations stated in the course syllabus apply.

Courses can be taught in English.

For elective courses the limitations to use these courses for the exam hold. This is stated in the course plan for each respective course.

Within the program the extent of courses at the bachelor level is restricted to 15 credit points.