Faculty of Science

MVEK03, Environmental Science: Degree Project with Specialisation in Environmental Health, 15 credits

Miljövetenskap: Examensarbete för kandidatexamen med inriktning mot miljö- och hälsoskydd, 15 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2008-06-11 to be valid from 2008-06-11, autumn semester 2008.

General Information

The course is a first cycle compulsory component of a Bachelor of Science degree in Environmental Science.

Language of instruction: Swedish and English

Main field of studies	*Depth of study relative to the degree requirements*
Environmental Science	G2E, First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree project for BA/BSc

Learning outcomes

The aim of the course is that students, on its completion, shall have attained the following knowledge and skills:

Basic knowledge in the field of environmental and health protection. This entails, on the one hand, ability to identify and understand causes and consequences of environmental problems and, on the other, understanding of how they emerge out of scientific, social and ecological processes. Furthermore, students shall have acquired the knowledge required to understand and critically review environmental science projects outside the field of environmental and health protection. The knowledge shall be possible to obtain from advanced textbooks and to some extent also from research articles.

Ability to apply analytical methods to discover environmental and health risks and to plan and conduct preventive environmental and health protection in society.

Ability to use theoretical principles and set up relevant measurement series and

interpret data. The student shall have the ability to compile and use statistics to test measurement and analysis results.

Ability to assess and propose measures to avoid negative impact on the environment and health in both the short and long term. This entails ability to argue for how human activity should be designed so as to avoid negative environmental impact.

In their future professional roles, students shall be able to present and communicate the subject to non-experts. The students shall develop the skills required to pursue further studies with a high grade of independence. This is achieved through a good ability to independently seek, compile and communicate information about environmental and health protection problems in speech and writing.

Course content

The course shall prepare students for professional environmental work and second cycle studies. To enable the students to attain this aim, the project assignment is to include assignments that are typical for professional environment and health protection officers.

The course content is mainly based on a project to be completed individually and under supervision by researchers or the equivalent at Lund University. Supervision can also be provided by an external supervisor at a company or public authority. The degree project can be based on laboratory work, field studies and/or literature studies. It is to presented in both speech and writing (Swedish or English) at a final seminar. It is to have a clear environmental science profile, i.e. deal with identification, quantification and understanding of the causes of environmental problems and/or proposals of measures to prevent or rectify environmental damage. The subject is mainly based in science but differs from traditional science subjects in including interdisciplinary and applied perspectives. The specialisation and design of the project is to be determined by the student, supervisor and course director in consultation. The student is to be encouraged to independently find a project assignment in the chosen specialisation and to find appropriate supervision. The supervisor is to have experience in the chosen field. If the student is unable to find an assignment and supervisor, he or she is to contact the course director at the latest one month before the start of the course.

Depending on the nature of the work, the course director can decide which components are to be included in the course. The possible components include writing techniques, experimental design, research methodology, interview techniques, presentation techniques, literature searches, report writing and project management. The aim is to develop the student's ability to execute an independent degree project that is adapted to the student's environmental science specialisation and the issue of the project.

Course design

In addition to the project work, the course consists of compulsory components including lectures and exercises (see Course Content). These components are to enable students to present their projects to their fellow students. The course is concluded with oral and written presentations to all students at a seminar. In connection with the final seminar, the students are to serve as co-assessors of other student projects, preferably in a specialisation other than their own. The supervisors,

course directors and examiners also participate in this seminar. After the presentation, the student is given the opportunity to revise the written part of the project. Accordingly, the course is project-oriented, consisting of an individual project conducted independently by the student and in consultation with a supervisor. The supervision takes place either at a research institute or at a company or public authority. Special teaching of report writing and other presentation techniques is compulsory.

Assessment

The written presentation is to be in the form of a report complemented with an abstract in English and a popular science summary (usually in Swedish). The oral presentation takes place at a seminar.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.
The final grade on the degree project is determined by the examiner in consultation with the course director and supervisor and is based on the student's ability to present his or her project in speech and writing. An important grading criterion is the student's ability to understand and independently execute the project. The student's performance as co-assessor of another project should also be able to affect the final grade.
For a Pass on the course as a whole, students must have passed the project report and participated in all the compulsory components.

Entry requirements

To be admitted to the course, students must satisfy the general admission requirements and have passed courses in environmental science amounting to at least 75 credits. The courses must include:
- MVEA01 Environmental Science: Basic Course,
- MVEC11, Law in Environmental Studies, or MVEC17 Environmental Law,
- MVEC14 Industrial Environmental Economics, or MVEC15 Governing the Environment
- KEMA00 General and Analytical Chemistry (7.5 credits) and KEMA02 Inorganic Chemistry (7.5 credits), and
- two of the following courses: GEOA80 Geology: Earth, Water and the Environment, FYSA15 Environmental Physics, BIOH01 Biology, Environment and Health, and BIOC02 Ecology.

Equivalent prior knowledge that has been acquired in some other way can also give admission to the course

Further information

In a degree, this course can be replaced with MVEK02.

Subcourses in MVEK03, Environmental Science: Degree Project with Specialisation in Environmental Health

Applies from H07

0801 Degree Project: Specialisation in Environmental Health, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction