

## **MVES04, Environmental Science: Environmental Assessment, 15 credits**

*Miljövetenskap: Miljöövervakning, 15 högskolepoäng*  
Second Cycle / Avancerad nivå

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### **Details of approval**

The syllabus was approved by Study programmes board, Faculty of Science on 2020-06-14 to be valid from 2020-06-14, spring semester 2021.

### **General Information**

The course is an elective second cycle component of a degree of Master of Science (120 credits) in environmental science or environmental and health protection.

*Language of instruction:* Swedish

#### *Main field of studies*

Environmental Science

Environmental Health

#### *Depth of study relative to the degree requirements*

A1F, Second cycle, has second-cycle course/s as entry requirements

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### **Learning outcomes**

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

- Specialised knowledge of the programme areas of environmental monitoring in Sweden and their links to the environmental quality objectives and the current legal requirements at European and national level
- Ability to apply modern methods of environmental monitoring such as target-setting, programme development, analysis and evaluation of collected data, conversion into action within the framework required or permitted by legislation. Ability to assess the environmental monitoring programmes based on their theoretical possibilities and limitations when applied in new contexts

- Developed ability to integrate knowledge and use methods to evaluate and quality assure the efficiency and development needs of environmental monitoring with regard to air, water, earth, biological diversity and human health
- Ability to communicate about environmental monitoring and action programmes and their efficiency to attain environmental quality standards and environmental quality objectives, and to independently finalise information searches of relevance to the field Ability to communicate results and information about environmental monitoring to both experts and recipients of the environmental monitoring programmes
- Developed ability to study in a mainly self-governed way.

## Course content

The course consists of two parts: The first deals with theory, legal requirements and instruments for environmental monitoring. The second part is practical in orientation and requires use of the contents of the first part and statistics, analysis methodology, environmental chemistry etc and is to lead to the development of an individual (limited) control programme.

The following topics are presented and discussed during the course:

- The function of environmental monitoring to provide knowledge of changes in a number of environments such as air, water and earth and call attention to divergences
- Links to environmental objectives, the requirements of environmental legislation and Sweden's reporting commitment in accordance with international directives and conventions
- The systematics of environmental monitoring and its possibilities/limitations to demonstrate the state of the environment
- Use of environmental monitoring in other areas of the environment at national, regional and municipal levels
- Management, analysis and evaluation of environmental data
- Benefits and possibilities of environmental monitoring for individual citizens, industrialists, researchers
- The most important challenges of the field

Each topic is introduced by a lecture, possibly followed by exercises and an assignment. Study visits and guest lecturers may be included. The course is concluded by final reports of the assignments.

## Course design

The teaching consists of lectures, individual exercises and group work. Participation in exercises and group work is compulsory.

## Assessment

The assessment is based on the the reports of exercises and assignments and on an exam.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

*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.

For a Pass on the whole course, the student must have passed the exercises, assignment and exam. For a grade of Pass with Distinction, the student must have passed the exercises and group work and been awarded a grade of Pass with Distinction on the exam.

## Entry requirements

To be admitted to the course, students must meet the general admission requirements and have 90 credits from science courses including:

- MVEC14 Industrial Environmental Economics, 15 credits, or MVET10 Environmental Protection, 15 credits

## Subcourses in MVES04, Environmental Science: Environmental Assessment

Applies from V21

- 2101 Theory, 6,0 hp  
Grading scale: Fail, Pass, Pass with distinction
- 2102 Project, 6,0 hp  
Grading scale: Fail, Pass, Pass with distinction
- 2103 Exercise, 2,0 hp  
Grading scale: Fail, Pass
- 2105 Excursion, 1,0 hp  
Grading scale: Fail, Pass