

Syllabus

MX0025.1 Ecotoxicology, 10.0 credits

Ekotoxikologi

The course is given as course independent of study programme

Syllabus discontinued 29 May 2008

Version 1 in Slukurs. Corresponds to version 1 in Ladok

Syllabus approved

30 November 2006

The version applies to students admitted from spring 2008 to spring 2008

The version is not a module version

Subjects

Environmental science/Biology

Education cycle

Second cycle

Modules

Title	Code	Credits
Single module	0101	10.0

Advanced study in the main field

Grading scale

Pass / Failed

The requirements for attaining different grades are described in the course assessment criteria which are contained in a supplement to the course syllabus. Current information on assessment criteria shall be made available at the start of the course.

Language

Swedish

Prior knowledge

Equivalent to 180 ECTS including 90 ECTS in one of the subjects Biology, Geoscience, Chemistry, Agricultural Science, Soil Science, Environmental Science, Technology. This should include at least 20 ECTS in Biology and at least 20 ECTS in Chemistry.

As an alternative to the above, equivalent to 120 ECTS including at least 20 ECTS in Biology and at least 20 ECTS in Chemistry and at least 20 ECTS in Soil Science.

Objectives

The course addresses the dispersal and uptake of environmental contaminants, as well as their toxic effects in soils and aquatic environments. Participating students will be able to

- describe important groups of environmental contaminants like pesticides, heavy metals, and pharmaceutical residuals
- understand effects of environmental contaminants at the cellular, organ, organismal, population, and ecosystem level
- describe the chemical and biological processes and mechanisms that govern bioavailability and toxicity
- describe and apply available tools for hazard assessment, for example toxicity tests and equilibrium partitioning
- critically review results of ecotoxicological studies/tests
- have insight in recent developments in ecotoxicological research

Content

The course addresses basic environmental chemistry and ecotoxicology, dispersal and uptake of environmental contaminants, as well as their toxic effects at various levels of organisation in soils and aquatic environments. Important groups of contaminants include organic environmental pollutants (including pesticides), heavy metals and hormone-disrupting compounds are covered using examples from the entire food web. The course also provides insight in societal organization for the risk and hazard assessment of chemicals.

Implementation

Lectures 60h
Laborations 50 h (compulsary)
Excercises/presentations 30 h (compulsary)
Study visits 10h
Discussion seminars 10h (compulsary)
Exam and evaluation of exam 10h
Excercises 20h
Literature studies 80h
Sum 270h

Examination

Requirements for examination

Written exam, presentation of exercises, participation in discussion seminars.

Passed exam, passed labs and exercises, and participation in compulsory parts

- If the student fails a test, the examiner may give the student a supplementary assignment, provided this is possible and there is reason to do so.
- If the student has been granted special educational support because of a disability, the examiner has the right to offer the student an adapted test, or provide an alternative assessment.
- If changes are made to this course syllabus, or if the course is closed, SLU shall decide on transitional rules for examination of students admitted under this syllabus but who have not yet passed the course.
- For the examination of a degree project (independent project), the examiner may also allow the student to add supplemental information after the deadline. For more information on this, please refer to the regulations for education at Bachelor's and Master's level.

Additional information

The course does not include laboratory exercises with mammals

- The right to take part in teaching and/or supervision only applies to the course date to which the student has been admitted and registered on.
- If there are special reasons, the student may take part in course components that require compulsory attendance at a later date. For more information on

this, please refer to the regulations for education at Bachelor's and Master's level.

Responsible department

Department of Aquatic Sciences and Assessment

Cooperating departments:

Department of Biomedical Sciences and Veterinary Public Health

Supplementary Information

Finalized by: Programutskottet för naturresursprogrammet- biologi och mark och agronomprogrammets mark/växtinriktning