Sveriges lantbruksuniversitet
Swedish University of Agricultural Sciences

Syllabus

BI1094.3 Contaminated soils - Risk Assessment and Remediation, 5.0 credits

Contaminated soils - Risk Assessment and Remediation

The course is given Soil and Water Management - Master´s Programme and EnvEuro - European Master in Environmental Science

Version 3 in Slukurs. No corresponding version in Ladok

Syllabus approved

21 January 2015

The version applies to students admitted from autumn 2015

The version is not a module version

Subjects

Biology/Soil science

Education cycle

Second cycle

Modules

Title	Code	Credits
Single module	0301	5.0

Advanced study in the main field

Second cycle, only first-cycle courses as entry requirements (A1N)

Grading scale

5:Pass with Distinction, 4:Pass with Credit, 3:Pass, U:Fail
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

English

Prior knowledge

The equivalent of 180 credits, of which 90 credits within one of the main areas biology, chemistry, agricultural science, soil science, geological science, environmental science or technology. This knowledge shall include at least 20 credits biology, at least 20 credits chemistry and at least 10 credits soil science or geological sciences. English skills equivalent to English B from upper secondary school.

Objectives

The overall objective of the course is to provide students with a good ability to apply various types of risk assessment and remediation methods for environmental pollutants, plus a good understanding of the theories and assumptions on which these are based.
After completion of the course, the student will be able to:
- carry out both a simple and a detailed risk assessment for an area contaminated with heavy metals and/or organic compounds
- describe conditions and methods for remediation of polluted soils
- search and critically assess scientific information.

Content

The course raises central questions where risk assessment and remediation is a central part of the work of authorities and businesses, with focus on decontamination of polluted environments. The course is mainly method-orientated and assumes good knowledge of ecotoxicology, soil biology, soil and water chemistry and transport process in soil and water systems. Teaching takes the form of lectures, case studies, study trips, computer exercises and seminars.

In lectures an compulsory exercises the course deals with the following components:
- methods for assessing the risks of soils contaminated with heavy metals and/or organic compounds, with the focus on the Swedish system of risk assessment (including study visits and case studies)
- basal microbial metabolism and important microorganisms
- methods and conditions for soil remediation.

Formats and requirements for examination

Passed written final exam and approved presentations of exercises and literature studies. Approved participation in compulsory parts of the course.

- 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 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 Molecular Sciences
Cooperating departments:
Department of Soil and Environment

Supplementary Information

Finalized by: Programnämnden för utbildning inom naturresurser och jordbruk (PN - NJ)
Biology Area: Microbiology