UNIVERSITY OF GOTHENBURG

DEPARTMENT OF EARTH SCIENCES

GVK430 Environmental geology, case study, 15 credits

Miljögeologi, fallstudie, 15 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2013-04-22 and was last revised on 2016-11-08 to be valid from 2016-11-08, spring semester of 2017.

Field of education: Science 100%
Department: Department of Earth Sciences

Position in the educational system

The course can be part of N2GVS Master's Programme in Earth Sciences. The course is offered as an elective course subject to availability.

The course can be part of the following programmes: 1) Environmental Sciences (N2MVN), 2) Bachelor of Science in Environmental Science (N1MVN) and 3) Master's Programme in Earth Sciences (N2GVS)

Main field of studies	*Specialization*
Earth Sciences	A1N, Second cycle, has only first-cycle course/s as entry requirements
Environmental Science	A1N, Second cycle, has only first-cycle course/s as entry requirements

Entry requirements

For admission to the course at least 120 credits in the different main fields of study in Science is required, of which at least 30 credits should be approved courses in the main field of Earth Sciences. Applicants with equivalent education can, after review and approval, be given access to the course.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- Account for important physical and geochemical properties and processes that influence contaminant dispersion, sedimentation and enrichment in sediment
- Explain why it is systematic trends in soil and sediment properties in different geological environments.

Competence and skills

- Structure and carry out an environmental investigation by means of problem analysis and conceptual modelling
- Carry out risk analyses
- Design a webpage online
- Discuss achieved results oral and in writing

Judgement and approach

- Critically analyse and evaluate soil's and sediments' importance for issues regarding procedures in environment and consequences of this, as well as environmental protection measures and decontaminations.

Course content

The teaching includes lectures, group tuition, individual exercises, group work, laboratory sessions, a field trip, and a larger case study where principles and methods should apply. Everything except lectures is compulsory.

The course covers:

1. Small-scale systems where soil and sediment properties is characterised in relation to environmental processes.
2. Large-scale systems where relations and trends in different environments are compared
3. Modelling and application of geological knowledge in environmental work.

The case study consist mainly of an independently completed presentation assignment, or group assignment of one or more case studies connected to environmental geological issues. Usually an area is chosen where current societal issues forms the background for several project work. The case study aims to give a practical exercise of environmental geological knowledge.

Form of teaching

Language of instruction: English

Assessment

The assessment is based on written tests, written assignments and a larger field study.

Components 1 Case study (Case study) 7 credit Fail/Pass/V

Components 2 Theory (Theory) 5 credits Fail/Pass/V

Component 3 Exercises (Exercises), 3 credits Fail/Pass/V

A student has the right to request a change of examiner, if this i practically possible, after they have been failed twice on the same examination. The application shall be sent to the board of the department and has to be in writing.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).
For the grade Pass (G) as the final grade in the whole course, the grade Pass (G) on all compulsory components of all the sub-courses are required. For the grade Pass with distinction (VG), the grade Pass with Distinction (VG) is required on at least two of the sub-courses.

Course evaluation

Course evaluation is carried out in 2 stages, partly a timetabled dialogue between teachers and students, partly via Canvas where student can participate anonymously.

Additional information

Students on N2GVS have precedence to course. Certain teaching can occur in Swedish.