UNIVERSITY OF GOTHENBURG

DEPARTMENT OF BIOLOGICAL AND ENVIRONMENTAL SCIENCES

ES2617 Environmental assessments of planetary crises, 7.5 credits

Miljöbedömningar av planetära kriser, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Biological and Environmental Sciences on 2024-01-23 and was last revised on 2024-02-01 to be valid from 2024-02-01, spring semester of 2024.

Field of education: Science 100%
Department: Department of Biological and Environmental Sciences

Position in the educational system

The course is an advanced course in environmental sciences at the second cycle level. The course is a compulsory course within the Master's program in Environmental Science (N2MVN) during the first semester. The course can also be included as an elective course in other Master´s (120 credits) programs at the faculty as well as be read as a freestanding course or as an electable course in other programs.

The course can be part of the following programme: 1) Environmental Sciences (N2MVN)

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

Entry requirements

At least 120 hp (credits), of which at least 90 HEC are in natural science (biology, chemistry, earth science, environmental science with emphasis on natural science, physics) and at least 15 HEC in environmental science. Students with equivalent education can be allowed to enter the course.
Applicants must prove their knowledge of English corresponding to English 6/English B from Swedish upper secondary school. For more information, see English language

requirements on Universityadmissions.se.

Learning outcomes

Knowledge and understanding
After successful completion of the course, the student will:

- Have an overview of the fundamental concepts, methodologies, and approaches applied in environmental assessments of planetary crises (ie. pollution, climate change, and biodiversity loss).
- Know which sources of data are used and how they are analyzed for making these environmental assessments.
- Be able to critically assess the strengths and limitations of these assessments.
- Understand how the environmental assessments are applied, in theory, and practice, and how they are related to policy instruments and international authorities and platforms (eg ECHA, IPCC, IPBES).

Competence and skills
The student is expected to have obtained the ability to:

- Search and retrieve relevant data by using public databases.
- Processing of data and performing simple modeling to predict the risks and impacts of pollution, climate change, and biodiversity loss in selected environments, and draw relevant conclusions.
- Write reports of different kinds, performed in all three subparts.

Judgement and approach
The student is expected to have practiced her/his critical approach by:

- Use acquired knowledge to assess the quality of relevant data
- Participation in group exercises and seminars
- Interpreting and presenting (in written and oral forms) the environmental assessments performed during the practical parts of the course.

The course is sustainability-focused, which means that at least one of the learning outcomes clearly shows that the course content meets at least one of the University of Gothenburg's confirmed sustainability criteria. The content also constitutes the course's main focus.

Course content

The course teaches advanced knowledge and skills in methodologies used for

environmental assessments of threeplanetary crises (i.e. pollution, climate change, and biodiversity loss). The course also deals with the public authorities and policy instruments that shape the monitoring, regulations, and management actions associated with these planetary crises.

The 7.5 credit course consists of about 4.5 weeks of full-time studies and is divided into two parts: theory (4 credits) and practical work (3.5 credits). The course is given in the form of lectures, computer exercises, and group work with subsequent seminar discussions.

Sub-courses

1. **Theoretical part** *(Teoretisk del),* 4 credits
   Grading scale: Pass with Distinction (VG), Pass (G) and Fail (U)
   Concepts and theory associated with environmental assessments.
2. **Practical part** *(Praktisk del),* 3.5 credits
   Grading scale: Pass (G) and Fail (U)
   Data mining, data analysis, seminars, written reports, and oral presentations.

Form of teaching

The teaching is conducted in the form of i) lectures, which are not compulsory but will provide the theoretical basis for the computer exercises and the final examination; ii) practical work in groups, including data mining, data analysis, literature work, risk and impact assessment, including written and oral presentations of the practical work and results – compulsory work.

Language of instruction: English

Assessment

The examination takes place through written examination, active participation in seminars, individual and group project work, as well as presentation of results obtained in computer exercises. The course has compulsory components in the form of seminars, group work, and computer exercises.

If a student who has twice received a failing grade for the same examination component wishes to change examiner ahead of the next examination session, such a request should be made to the department in writing and should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for

study support for students with disabilities, the examiner may, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years after the course has ceased/been changed. The same applies to internships and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).
The grading scale comprises: Pass with Distinction (VG), Pass (G), and Fail (U). The theoretical part is graded with Pass with Distinction (VG, 80-100%), Pass (G, 60-79%), and Fail (U, <60%). In addition, participation is required in the mandatory activities on the practical part of the course. The project part is graded with Pass or Fail only. Both the theoretical part and the project work must be passed to pass the entire course. The grade on the theoretical part will then form the basis for the grade on the entire course.

Course evaluation

Written and oral course evaluations are arranged at the end of the course. Results of the evaluation will be posted on the course webpage. Changes that have been made to improve the course in response to criticism and views will be shown to next year's students.