HALMSTAD UNIVERSITY
Phone +46 35 16 71 00 - www.hh.se
School of Business, Innovation and Sustainability

Ecosystem Services in a Changing World 7.5 credits

Ekosystemtjänster i en föränderlig värld 7.5 hp

Second cycle
Main field: Environmental Science, Second cycle, has only first-cycle course/s as entry requirements (A1N)
Syllabus is adopted by the Research and Education Board (2024-03-05) and is valid for students admitted for the autumn semester 2024.

Placement in the Academic System

The course is included in Master's Programme (60 credits) in Applied Environmental Science - Ecosystem Services and Nature Resource Management) and is given as a single subject course.

Prerequisites and Conditions of Admission

Degree of Bachelor of Science with a major in Environmental Science, Biology, Chemistry or Geology including an independent project 15 credits or Degree of Bachelor of Science in Engineering with an environmental orientation including an independent project 15 credits. The degree must be equivalent to a Swedish kandidatexamen or Swedish högskoleingenjörsexamen and must have been awarded from an internationally recognised university. English 6. Exemption of the requirement in Swedish is granted.

Course Objectives

The course aims at the student to develop in-depth knowledge of ecosystem services in terrestrial and aquatic ecosystems and how these are affected by human activities. Furthermore, assessing values of ecosystem services, especially when society changes towards a more circular use of resources. The course also aims to train the student in applying tools and scientific knowledge for the analysis of ecosystem services and sustainable development.

Following successful completion of the course the student should be able to:

Knowledge and understanding

- describe how ecosystem services are affected by human activities and methods to reduce this impact
- explain sustainable development of society in a context of maintained ecosystem services and green infrastructure based on scientific knowledg

Skills and ability

- apply different tools for analysis of ecosystem services and sustainable development with the support of scientific data
- analyze and discuss different goals for society's development and how these affect ecosystem services
- based on scientific models of, among other things climate development and loss of biodiversity, discuss current and future threats and opportunities regarding ecosystem services

Judgement and approach

- discuss, reflect and evaluate planning for the promotion of ecosystem services and sustainable development with reference to scientific knowledge
- critically evaluate your own results, review those of others and independently search for new, scientifically verified, knowledge in the field

Primary Contents

The course develops and deepens the students' understanding of connections between ecosystem services, human activity, sustainable development and environmental changes. Furthermore, discussions on how ecosystem services should be valued. The course further addresses nature-based solutions for sustainable societal development and discusses issues of connectivity and fragmentation in the landscape as a fundamental factor for the functioning and/or restoration of ecosystem services. The course strives to let the students develop their ability to apply scientific studies in their stance. The course also provides an insight into ecosystem-related research and innovations in environmental science and ecology.

Teaching Formats

The teaching consists of lectures, seminars and project work (which includes laboratory work). The teaching is conducted in English.

Examination

The overall grades of F (Insufficient), E (Sufficient), D (Satisfactory), C (Good), B (Very Good), A (Excellent) will be awarded for the course.
The course is examined through seminars, an individual project work and a project work carried out in a group.

Name of the test		Grading
Seminars	4 credits	F/E/D/C/B/A
Project Work I	1,5 credits	F/E/D/C/B/A
Project Work II	2 credits	F/E/D/C/B/A

If there are special reasons, the examiner may make exceptions from the specified examination format and allow a student to be examined in another way. Special reasons can e.g. be a decision on learning support.

For elite sports students according to Riktlinjer för kombinationen studier och elitidrott vid Högskolan i Halmstad, DNR: L 2018/177, the examiner has the right to decide on an adapted examination component or let the student complete the examination in an alternative way.

Course Evaluation

Course evaluation is part of the course. This evaluation should offer guidance in the future development and planning of the course. Course evaluations should be documented and made available to the students.

Course Literature and Other Study Resources

Everard, Mark. *Ecosystem Services: Key Issues*. 2nd ed. Taylor and Francis Ltd, 2021

Scientific articles.