

Sustainable Water Resources Management 7.5 credits

Hållbar vattenresurshantering 7.5 hp

Second cycle

Main field: Environmental Science, Second cycle, has only first-cycle course/s as entry requirements (AIN)

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 optional within the Master's Programme (60 credits) in Applied Environmental Science. The course is given as a single subject course.

Prerequisites and Conditions of Admission

90 credits Environmental Science, Environmental Health, Biology, Environmental Engineering or Natural Sciences with focus on Environment. English 6. Exemption of the requirement in Swedish is granted.

Course Objectives

The course aims for deepened knowledge and insight into research about sustainable water resources management. Students are given the opportunity to develop knowledge about water resources, their use and management, and challenges to achieve a sustainable use in a local, regional and global perspective. The course includes sustainable management of different ecosystems, such as wetlands, forests, agricultural land, river networks, and how this can contribute to a sustainable use of water resources. The course should further give experience in application of research as well as in critical evaluation of research results within the field.

Following successful completion of the course the student should:

Knowledge and understanding

- account for and exemplify current problems around sustainable water resources management
- account for the role of wetlands, forests, land use and river networks in sustainable water resources management
- account for current research and evaluation methods within the subject

Skills and ability

- conduct qualified estimations of the effect of wetlands, forests and agricultural land on the water cycle

- retrieve and put together information about water quality, water management and research within the area for applied purposes

Judgement and approach

- conduct qualified environmental assessment within sustainable water resources management
- conduct qualified judgment concerning the use and design of wetlands, water-efficient agricultural practices in water management, and the use of healthy forests and river networks in water management
- critically evaluate information and research within the field

Primary Contents

Sustainable water resources management in a local, regional and global perspective. Water resources, their use and management, and challenges to achieve a sustainable use and management. The role of the catchment within sustainable resource management. Water resources and forests, wetlands, agriculture, biodiversity and ecosystem services. Application and critical evaluation of research.

Teaching Formats

The teaching includes seminars. It also includes exercises, teacher advised discussions, seminars and supervision during project work.

Teaching is 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.

Assessment is based on grade-based seminars, written and oral presentations.

Compulsory elements include seminars, exercises, laboratories and teacher advised discussions.

Name of the test		Grading
Seminars	5 credits	F/E/D/C/B/A
Project	2,5 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

Wolfram Mauser, Karen (TRN) Schneider, Klaus (EDT) Wiegandt. *Water Resources*. Haus Publishing, 2009

Further literature in the form of scientific articles is supplied during the course.

Literature is supplied during the course.