



LUNDS UNIVERSITET
Lunds Tekniska Högskola

Course syllabus

Integrerad vattenresurshantering: Internationella aspekter Integrated Water Resources Management: International Aspects

VVRF01, 7,5 credits, G2 (First Cycle)

Valid for: 2023/24

Faculty: Faculty of Engineering, LTH

Decided by: PLED W

Date of Decision: 2023-03-27

General Information

Main field: Water Resources Engineering.

Compulsory for: MWLU1

Elective for: V4-vr, W4-vr, MKAT2

Language of instruction: The course will be given in English

Aim

The aim of the course is to prepare students for work as water managers with an international perspective. The course focuses on Integrated Water Resources Management and is implemented through a theoretical background of key water issues and management tools, a review of associated practical examples, and identification of recommendations for improved management in selected river basins.

Learning outcomes

Knowledge and understanding

For a passing grade the student must

- have a thorough understanding of the meaning and application of Integrated Water Resources Management in an international perspective
- have a good comprehension of technical, environmental, social, and political issues in Integrated Water Resources Management
- be well familiar with the most common international water problems, as well as the main management tools that can be used to address them

Competences and skills

For a passing grade the student must

- be able to present a scientific proposal for improved water management in a selected river basin
- be able to apply the learned knowledge by providing management proposals to solve practical water problems and by presenting their opinions on important issues in Integrated Water Resources Management

Judgement and approach

For a passing grade the student must

- show the ability of critical and comprehensive thinking in evaluating key international water problems
- understand the interests and influence of the most common stakeholders in water management issues, and be able to include them in recommendations for improved management

Contents

Theoretical Review:

Integrated Water Resources Management with focus on issues related to floods, droughts, drinking water, sanitation, hydropower, and pollution. These issues will be studied with an emphasis on a basin level perspective, including technical, environmental, social, and political aspects. Key water management features that are addressed to identify recommendations include policies, institutional arrangements, stakeholder involvement, economic instruments, and financing.

Round table debate session

Each student will represent a stakeholder in a river basin during a round table discussion with other stakeholders. The main objective of the debate is to increase the students' awareness of the conflicting interests of various groups involved in water issues.

Project Assignment:

Students work in groups to analyse current issues and identify recommendations in water management for a selected river basin. The project assignment is presented as a technical report and an oral presentation.

Examination details

Grading scale: TH - (U,3,4,5) - (Fail, Three, Four, Five)

Assessment: Examination is based on one compulsory round-table debate session where students represent stakeholders in a river basin, one project assignment (carried out in groups) and a written examination. Scoring of the project assignment is based on the scientific content, structure, and oral presentation of the technical report. The written exam is of "closed book" type and consists of open questions treated within the course. The course grade is a weighted average of the project assignment and the written examination. The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

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Admission

Assumed prior knowledge: VVR145/VVRA05 Water or VVR111/VVRA01 Hydrology and Aquatic Ecology or equivalent.

The number of participants is limited to: 50

Selection: Credits remaining for the degree. Priority is given to students enrolled on programmes that include the course in their curriculum.

The course overlaps following course/s: VVR130

Reading list

- Integrated Water Resources Management Plans (Training Manual and Operational Guide), By Cap-net.org, CIDA and GWP/UNDP, 2005. (pdf available).
- Integrated Water Resources Management in Practice Better Water Management for Development. Roberto Lenton and Mike Muller (Ed), 2009. ISBN 9781844076505. (pdf available, selected chapters only).
- A Handbook for Integrated Water Resources Management in Basins. By GWP and IUCN, 2009. (pdf available).
- Additional reading will be assigned during the course for specific lectures and themes.

Contact and other information

Course coordinator: Erik Nilsson, erik.nilsson@tvrl.lth.se

Teacher: Maryam Nastar, maryam.nastar@lucsus.lu.se

Course homepage: <http://www.tvrl.lth.se/utbildning>

Further information: This course is compulsory for the International Master's Programme in Water Resources Engineering (WaterLU). A minimum of 10 students from the Master Programme in Disaster Risk Management and Climate Change Adaptation are granted access to the course.