



ME2083 Hydropower- Technology, Economy, Sustainability 7.5 credits

Vattenkraft- teknik, ekonomi, hållbarhet

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ME2083 valid from Spring 2014

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Built Environment, Industrial Management

Specific prerequisites

120 hp

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

The course shall give the student theoretical and empirical knowledge about

- the role of hydropower in the energy system, primarily in Sweden but also internationally;
- the hydrological conditions for and consequences of hydropower;
- design and building of dam, gates, intake, outlet, power station;
- mechanical, electrical and electronic equipment;
- the economic conditions for and consequences of hydropower;
- the environmental impact of hydropower and how this can be mitigated;
- the legal conditions for hydropower.

Course contents

The main focus is how the hydrological conditions determine the physical and technical design as well as the operation of a hydropower station, and which the economic and environmental consequences will be.

Course literature

Anges senare.

To be specified later.

Examination

- PRO1 - Project, 1.5 credits, grading scale: P, F
- TEN1 - Examination, 6.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

The examination of the course consists of

- one written exam

- one smaller and one bigger project work
- active participation in a number of seminars;
- active participation in preparing and carrying through study visits.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.