# AF283X Degree Project in Hydraulic Engineering, Second Cycle 30.0 credits

**Examensarbete inom vattenbyggnad, avancerad nivå**

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

## Establishment

Course syllabus for AF283X valid from Autumn 2015

## Grading scale

P, F

## Education cycle

Second cycle

## Main field of study

The Built Environment

## Specific prerequisites

Generally, the main part of programme courses should be completed before the degree project may be started.

Master of Science in Engineering: 300 credits

At least 240 credits should be completed before the degree project may be started.

Master's degree 120 credits:

The main part of the programme, at least 60 credits, should be completed before the degree project may be started, of which 30 of these credits are within the specialisation area for second-cycle studies in the main field of study.

It is the examiner's responsibility to decide whether the student has the appropriate specialisation and that the student has completed the main part of the programme before the degree project is started.

Exemptions may be granted after hearing by the director of first and second cycle education.

## Language of instruction

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

## Intended learning outcomes

After a completed degree project, the student should be able to

1. show knowledge of the disciplinary foundation of the chosen subject area and best practice, an advanced understanding of current research and development work and advanced knowledge of methods.
2. demonstrate the ability to search for, collect and integrate knowledge in a comprehensive, critical, and systematic way and to identify his or her needs for further knowledge.
3. demonstrate the ability to identify, analyse, assess and handle complex phenomena, issues and situations, even with limited information.
4. demonstrate the ability to plan, and with adequate methods, carry out high-quality assignments within given time frames, as well as to evaluate this work.
5. demonstrate the ability to develop and evaluate products, processes, systems, methods or technical solutions, taking into consideration people's abilities and needs, and society's goals for economic, social and ecological sustainable development.
6. demonstrate orally and in writing the ability to, in dialogue with different groups, clearly account for and discuss his or her conclusions, including the knowledge and arguments that are the basis of such conclusions.
7. demonstrate the ability to exercise judgement, considering the relevant scientific, social and ethical aspects.
8. demonstrate the skills required to participate in research and development work or to independently work in other advanced contexts.

## Course contents

The degree project should constitute a part of a specialisation within main field of study civil engineering and urban management at the second-cycle level to satisfy the requirements

for the degree.  This implies that the degree project should normally be carried out within Hydraulic Engineering.

## Disposition

The course is designed as a delineated research project.

The course structure may include, among other things, literature studies, problem formulation, collection and compilation of data and analysis.

The degree project should be presented at a seminar. The degree project should be written and presented in Swedish or English. A summary should be included in both languages. The Master thesis will be checked for plagiarism.

## Course literature

Relevant literature to be able to carry out the degree project.

## Examination

- XUPP - Examination, 30.0 credits, grading scale: P, 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.

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

The degree project should normally be carried out during the last semester of the educational programme.

To pass the degree project, the performance must not be unsatisfactory in any of the expected learning outcomes of the course.

## Other requirements for final grade

An approved degree project report that has been presented at a seminar.

## 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.