

# IA150X Degree Project in Information and Communication Technology, First Cycle 15.0 credits

Examensarbete inom informationsteknik, grundnivå

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**

On 2020-10-19, the Head of School of EECS has decided to establish this official course syllabus to apply from the spring semester 2021 (registration number J-2020-1222).

# **Grading scale**

P, F

### **Education cycle**

First cycle

### Main field of study

**Technology** 

### Specific prerequisites

To start a degree project it is required that courses, that are considered relevant to the degree project, have been passed and that at least 120 credits from the programme syllabus of the programme are completed. The student's eligibility, to carry out and complete the degree project, are assessed and accepted by an examiner before course registration.

Course registration and starting the degree project can at the earliest take place during the final semester in the degree programme.

# Language of instruction

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

### Intended learning outcomes

The purpose of the degree project is that the student shall apply and deepen his or her knowledge, understanding, abilities, and approaches within the context of the education. The degree project shall be carried out towards the conclusion of the education and imply a specialised study and synthesis of earlier acquired knowledge. In the degree project both the technical/scientific content and method knowledge are emphasised.

After completing the degree project, the student shall demonstrate the knowledge and skills required that is required to work independently within the field of the education according to KTH's local goals for Bachelor's degree based on the outcomes in Higher Education Ordinance. These include:

- show knowledge and understanding within the main area of study, including knowledge
  of the disciplinary foundation of the field, knowledge of applicable methods in the area,
  specialisation within some part of the field and orientation about current research and
  development
- demonstrate the ability to search, collect, evaluate and interpret relevant information in a problem critically
- demonstrate the ability to independently identify, formulate and solve problems and to analyse and evaluate different technical solutions
- demonstrate the ability to integrate and use knowledge
- demonstrate the ability to plan and carry out assignments within a given framework
- demonstrate the ability to discuss phenomena, issues and situations critically and model developments based on relevant information
- demonstrate the ability to describe and develop simple proposals for products, processes
  and systems taking into account the circumstances and needs of individuals and the targets
  for economically, socially and ecologically sustainable development set by the community,
- demonstrate the ability to in cooperation plan, carry out and report given assignments
- demonstrate the ability to in Swedish or in English, orally and in writing account to and discuss information, problems and solutions in dialogue with different groups
- show ability to make assessments within the main field of study, considering relevant scientific, social and ethical aspects

- demonstrate an understanding of the role of the knowledge and the technology in the society and the people's responsibility of how these are used
- demonstrate the ability to identify own needs of additional knowledge and to develop own skills.

### Course contents

Before the degree project course is started, the student should identify an appropriate degree project assignment and formulate a project proposal, so that this can be approved by the examiner. The assignment should be chosen so that it implies a natural progression of the knowledge and skills that have been acquired within the education and in a possible specialisation within the education.

- The student writes an individual plan for the degree project, in which the problem description/assignment and the preconditions for the implementation of the work are specified.
- The student carries out an in-depth pre-study including discussions of method choice and theoretical background with a literature study that is reported as part of a draft to a preliminary version of the written degree project report.
- The student independently carries out a degree project, where knowledge and methods from the education are applied.
- The student plans and carries out an oral presentation and defence of his or her degree project.
- The student carries out an oral and written review of another first-cycle degree project.
- The student writes and presents a written degree project report, where the student clearly accounts for and discusses own conclusions in the degree project and the knowledge and the arguments that underpin them.
- The student carries out a self-evaluation of the degree project according to established model.

### **Examination**

• PRO1 - Project, 15.0 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.

### In PRO1 is included

- individual plan for the degree project
- a pre-study, a discussion of choice of method, and a literature study.
- a written report with an abstract in both Swedish and English.
- a self-assessment report.
- an oral presentation

- written and oral opposition of another student's degree project for first-cycle studies
- the final version of the report.

# Other requirements for final grade

Active attendance at two oral presentations of degree projects for first-cycle studies.

All examination part should be approved within a year from the start of the degree project. Otherwise, the degree project will be ended with a failed grade, unless special circumstances apply.

# 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.