II123X Degree Project in Information and Communication Technology, First Cycle 15.0 credits

Examensarbete inom informations- och kommunikationsteknik, grundnivå

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

Establishment

Course syllabus for II123X valid from Spring 2019

Grading scale

A, B, C, D, E, FX, 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 program (consisting of completely completed courses) are completed. The student's preconditions, to carry out and complete the degree project, are assessed and accepted by an examiner before course registration.

Course registration and starting of 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 knowledge, understanding, abilities, and approaches within the contexts of the education. The degree project should be carried out at the end 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 critically in a problem
- demonstrate the ability independently to 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 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 considering the preconditions and need of people and the aims of the society for economic, social and ecological sustainable development
- demonstrate the ability to in cooperation plan, carry out and present given assignments
- demonstrate the ability to in Swedish or in English, orally and in writing Account for and discuss information, problem and solutions in dialogue with different groups
- demonstrate the ability to (within the main field of study for the education) make assessments 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

Learning activities

Before the degree project course starts, the student shall identify an appropriate degree project task and formulate a project proposal that can be presented to the examiner for approval. The assignment must be chosen, so that it implies a natural progression of the knowledge and skills that have been acquired within the education.

The student must write 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 individual plan for the degree project should contain a background including a problem description and scientific aspects/question formulations, purpose(s), goals, delimitations, the relevance of the project, methods and time schedule for the implementation of the degree project. The individual plan shall also contain a brief self-reflection where the student accounts for his knowledge to carry out the assignment and the planning for how potential remaining courses, that are required for higher education qualification, shall be completed. The individual plan for the degree project, shall be approved by the examiner.

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 a part of a draft to a preliminary version of the written degree project report.

The student carries out an individual independent project, where knowledge and methods from the education are applied.

The student plans and carries out oral presentation and defence of his or her degree project.

The student carries out an oral and written review of another degree project on the same level.

The student writes and presents a written degree project report, where the student clearly presents and discusses own conclusions in the degree project and the knowledge and the arguments that support them.

The student carries out a self-assessment of the degree project according to the template for "Assessment of quality of degree project for Degree of Master of Science in Engineering and Degree of Bachelor of Science". The self-assessment is enclosed as appendix in the degree project report.

Disposition

- The degree project is one individual degree project that is carried out by one or two students.

- The student contacts an appropriate examiner before the work starts. Alternatively, the director of studies for degree project or programme co-ordinator can propose an examiner.
- The student(s) prepares a brief written project proposal describing the work. This description shall be enclosed to the registration material. The description shall contain background, purpose, objective and method.
- The examiner ensures that the students satisfy the general and specific prerequisites for the degree project and that the suggested degree project can satisfy the expected learning outcomes for a degree project. The examiner verifies that the degree project falls within the degree programme/s subject area and that the issues studied show an appropriate progression within the education. The examiner signs the registration form.
- The examiner appoints a supervisor at KTH and approves a possible industry supervisor in consultation with the director of studies for degree project.
- The degree project can be registered after the examiner has accepted the assignment.
- The student writes a detailed individual plan for the degree project and delivers it to the examiner for approval.
- The student carries out a pre-study, an investigation of choices of methods, as well as a literature study, which are delivered to the supervisor at KTH for approval.
- During the implementation of the degree project, the student shall regularly (at least every second week) report how the work is progressing, to the supervisor at KTH.
- The student shall, continuously during the degree project, document the work in writing and work on the preliminary version of the written report.
- When the supervisor at KTH assesses that the student has reached the aims according to the plan for the degree project and that the quality of the preliminary written report holds high quality write the student a self-assessment of the degree project according to the template for "Assessment of quality of degree project for Degree of Master of Science in Engineering and Degree of Bachelor of Science". The supervisor gives feedback on the self-assessment, and the student will be given the opportunity to remedy possible deficiencies.
- The report and self evaluation shall be delivered, together with the supervisor's summary of the assessment of the degree project report, according to the template for "Assessment of the quality of the degree project" to the examiner for a preliminary approval.
- For opposition, the student is assigned another student's degree project report, to publicly discuss on his or her degree project. The date for opposition and the choice of degree project, to publicly discuss, shall be approved by the examiner. The student shall carry out an oral and written review of the other student's presentation of his or her degree project. The opposition is assessed by the examiner of the other student.
- The student shall carry out an oral presentation and a defence of his or her report.
- After the presentation, and no later than one week (or two weeks for half time studies) after presentation, the student shall deliver a final report to examiner. To the report, the student shall enclose an updated self-reflection based on the template "Assessment of quality of degree project for Degree of Master of Science in Engineering and Degree of Bachelor of Science".
- The examiner is responsible for the plagiarism checking of the degree project report.
- The examiner fills out the template "Assessment of quality of degree project for "Assessment of quality of degree project for Degree of Master of Science in Engineering and Degree of Bachelor of Science".

- The grade shall be determined by a teacher (examiner), particularly appointed by the higher education institution.
- The examiner shall acquire support for grading from at least one other teacher on KTH, competent in the subject area, (who constitutes reviewer for the degree project).
- KTH's policy for public attendance applies to the implementation of the degree project and for publication of the report. The degree project report will be published electronically in Diva, according to the rules that apply to electronic publication of degree projects at KTH.

Examination

- XUP1 - Degree Project, 15.0 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.

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

Other requirements for final grade

- Individual plan for degree project
- Active attendances at two oral presentations of degree project
- Pre-study, discussion of method choices and literature study
- Self-assessment report
- Oral presentation
- Written and oral review of other student's degree project
- Written report with summary/abstract in both Swedish and English

Time limit

Requirements according to KTH's regulatory framework for degree projects and all examination parts as mentioned above shall be approved within a year from the starting date 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.