



LT200X Degree Project in Technology and Learning, Second Cycle 30.0 credits

Examensarbete inom teknik och lärande, avancerad nivå

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 LT200X valid from Autumn 2016

Grading scale

P, F

Education cycle

Second cycle

Main field of study

Technology and Learning

Specific prerequisites

To be admitted to the course, the student is required to have completed at least 240 credits in the Master of Engineering and Teachers programme. All courses during years 1-3, as well as the following courses, should be completed with a minimum E grade: Learning and

Assessment, Project Management, Organisational Development, and Mathematics, Technology and Science Education.

Language of instruction

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

Intended learning outcomes

On course completion, the student should have the ability to individually, and in dialogue with supervisors:

â€¢ demonstrate knowledge and understanding of the scientific foundation and best practices for the chosen subject, as well as an advanced understanding of current research and development within the area and in-depth knowledge of research methodology.

â€¢ demonstrate the ability to search for, collect and integrate knowledge and identify his or her needs in a comprehensive, critical, and systematic way for further knowledge.

â€¢ demonstrate the ability to identify, analyse, assess and handle complex phenomena, issues and situations, even with limited information.

â€¢ demonstrate the ability to plan and, with adequate methods, carry out high-quality assignments within given time frames, as well as to evaluate the work.

â€¢ 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 economically, socially and ecologically sustainable development.

â€¢ demonstrate in writing and in dialogue with different groups the ability to account for and discuss his or her conclusions, including the knowledge and arguments that are the basis of such conclusions.

â€¢ demonstrate the ability to exercise judgement considering relevant scientific, social and ethical aspects.

â€¢ demonstrate the skills required to participate in research and development work or to independently work in other advanced contexts.

Course contents

The course includes an independent formulation and completion of a project and its documentation. This implies choosing an issue, collecting materials in a systematic way, analysing and processing the issue with scientific methodology, and presenting the work. The work should display the ability to methodically reflect on knowledge that is related to future professional work.

Disposition

The degree project is carried out individually or in pairs. For each degree project, two supervisors from either KTH or Stockholm University are appointed. One is a qualified examiner in the technical field and the other in teaching and learning (relevant to the subject area of the degree project). For the role of examiner, teachers at KTH with examining qualifications within the subject area are appointed. The Theory, Research and Development for Teachers course should be completed with a minimum E grade before the degree project is completed.

Course literature

Course literature is decided in consultation between the student, supervisor and examiner, and consists of suitable research publications and reports as well as literature about scientific methods.

Examination

- XUPP - Examination Question, 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.

The examination comprises a written report, an oral presentation and a review of another student's degree project. When assessing a degree project, considerations will be given to the points below:

The implementation process, including an understanding of the prescribed assignment and its relevance for future

work as well as independence and ability to follow the established time plan for the work.

Engineering and scientific content; also knowledge of the theoretical background.

Written and oral presentation, including an interpretation and analysis of results and a review of another degree project.

A student who has not completed his or her degree project within eight months risks failing the course.

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.

