Linnæus University

Dnr: 2019/2028-3.1.2.2

Course syllabus

Faculty of Technology

Department of Building Technology

5BY31E Examensarbete (master), 30 högskolepoäng
5BY31E Degree project (master), 30 credits

Main field of study
Civil Engineering

Subject Group
Building Technology

Level of classification
Second Level

Progression
A2E

Date of Ratification
Approved by Faculty of Technology 2019-06-10
The course syllabus is valid from spring semester 2020

Prerequisites
75 credits within the Master Program Sustainable Structural Engineering, or equivalent.

Objectives

In the course, the student (working in the usual case in a group of two) must demonstrate his/her ability to independently plan, implement and report on a scientific project. The student must also demonstrate his/her ability to apply the knowledge acquired during the program, define a problem or a research question, conduct an investigation, and analyze and present results.

Knowledge and understanding
To pass, the student is expected to

- A.1 apply and deepen knowledge acquired during the studies at both undergraduate and advanced level
- A.2 define problems and research issues within the current main area
- A.3 account for the latest research findings related to problems or research issues defined in the thesis work.

Skills and abilities
To pass, the student is expected to

- B.1 independently plan and carry out a major scientific project
- B.2 write a scientific report in accordance with general guidelines for scientific and technical reports
- B.3 orally present and defend the project and its results and conclusions.

Judgment and approach
To pass, the student is expected to

- C.1 analyze, evaluate and draw conclusions based on the results obtained from the project, in relation to the scientific background of the technical area and proven experience, as well as social and ethical aspects
- C.2 critically review and verbally oppose similar works
- C.3 interact with supervisors and collaborate with other students.

Content
The course contains the following elements:

- problem formulation and method selection,
- survey and make use of relevant scientific literature,
- independent project work that includes theoretical, numerical and/or experimental elements,
- analysis, evaluation and critical review of results,
- draw conclusions and deductions from the results with regard to scientific, societal and ethical aspects,
- scientific-technical report writing,
- oral presentation and defense of the completed project and its results and conclusions before a group composed of different categories of persons, such as students, supervisors, examiners and representatives of companies and authorities,
- oral opposition of another student’s degree project within the same main area, as well
- submit the completed thesis in digital form to the department and to the university library.

Type of Instruction
The degree project is carried out as an independent project with literature studies and fact-finding, extensive theoretical, numerical and/or experimental elements, as well as analyzes. The student must plan and, with adequate methods, perform the tasks within the project within given time frames. Supervisors are appointed by the institution. In In some cases, there will also be an assistant supervisor of a participating company.

In addition, teacher-led seminars are arranged that deal with the content and structure of the scientific report that are planned in coordination between student and supervisor.

Examination

The examination of the course is divided as follows:

Code	Designation	Grade	Credits
2001 2002	Project (planning)	AF	1,00

Presentation and defense of the degree project		AF	2,00	
2003	Opposition on another degree project	AF		2,00
2004	Written Scientific-technical report	AF		25,00

The course is assessed with the grades A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).
The presentation and the opposition are usually oral. In exceptional cases, written examinations of these parts may be arranged.
For an approved final grade for the course, all four parts must be approved. The final grade is obtained through the weighting of the various parts where the written report is given the largest weight.

In which language (Swedish or English) the degree project is written and reported is determined by the examiner in consultation with the supervisor and the student.

The degree project must be completed no later than two years from the start of the course. If any part is not completed within the said time, the examiner must once again approve the problem statement, research issue and subject in focus of the degree project.

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

Objectives achievement

The examination elements are linked to the course objectives in the following ways:

Goal	2001	2002	2003	2004
A.1		☑	☑	☑
A.2		☑	☑	☑
A.3		☑	☑	☑
B.1	☑			☑
B.2				☑
B.3		☑	☑	
C.1		☑	☑	☑
C.2			☑	
C.3	☑	☑	☑	☑

Course Evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course. The course evaluation is to be carried out anonymously.

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Certain parts of the course may entail costs for the course participant.

Required Reading and Additional Study Material

Literature is selected after discussion with the supervisor.