

Course Syllabus

Degree Thesis for 60-Credits Master in Energy Technology with Focus on Energy Efficiency in the Built Environment 15 Credits*, Second Cycle Level 1

Learning Outcomes

The objective of the course is for the students to be able to apply in depth knowledge from the field of energy technology with focus on energy efficiency in the built environment by completing a thesis project related to industrial development or academic research.

The student shall, upon completion of the course, be able to:

- demonstrate the ability to identify and formulate issues independently, and to plan and complete a project using suitable methods within the given timeframe;
- demonstrate knowledge and understanding of energy- efficiency engineering, including both an overview of the subject and deeper knowledge of selected parts of the field as well as insight into current research and development in the field;
- demonstrate advanced methodological knowledge in the main subject area of the programme;
- demonstrate an ability to integrate knowledge and to analyse, assess and work with complex phenomena, issues and situations even with limited information;
- demonstrate the ability to identify the need for further knowledge and to take responsibility for their own continuous learning;
- demonstrate the ability to present and discuss their conclusions and the underlying arguments both orally and in writing.

Course Content

The course comprises of an independent engineering project, based on the knowledge that the student gained during the programme. Independent work means that the student shall critically analyse the problem and with a holistic approach solve it within a given timeframe. Within the national or international context, the thesis work can be completed as either as an industrial or an academic project. An industrial project is to be completed in cooperation with the industry or an external organisation. An academic project is to be conducted at an academic institution. The work includes formulating the aim and objectives of the project and conducting a literature review. The results of the project should then be presented and analysed. The work concludes with a written thesis and oral defence at a seminar.

Assessment

Oral and written presentation of the thesis proposal at a seminar.

Written and oral presentation of the thesis and a critical review (opposition) of a fellow student's thesis, 15 credits.

Forms of Study

Introductory lectures. Individual degree project work by one or two students supervised by a faculty staff member.

In the case of a joint thesis, the work carried out by each student shall be clarified in the thesis so that individual grades can be set.

Grades

The Swedish grades U, 3, 4, 5.

Prerequisites

Bachelor of Science degree in energy technology, building or civil engineering related fields of at least 180 credits. Courses of at least 30 credits in total in the 60 credit Master Programme in Energy Efficient Built Environment should be completed

Subject:

Energy Technology

Group of Subjects:

Energy Technology

Disciplinary Domain:

Technology, 100%

This course can be included in the following main field(s) of study:

1. Energy Technology

Progression Indicator within (each) main field of study:

1. A1E

Approved:

Approved 14 December 2017

Valid from 7 March 2018