

Course Syllabus

Degree Thesis for 60-Credits Master in Solar Engineering 30 Credits*, Second Cycle Level 1

Learning Outcomes

The goal of the thesis project is for students to be able to apply in-depth knowledge within the field of solar energy engineering by performing industrial development or research-oriented work. Upon completion of the course, the student shall be able to:

- demonstrate the ability to independently identify and formulate issues, and to plan and complete, using suitable methods, the project within the given timeframe
- demonstrate knowledge and understanding in the main subject, including both an overview of the field and deeper knowledge of certain parts of the field as well as insight into current research and development in the field
- demonstrate advanced methodological awareness in the main subject of the programme
- demonstrate an ability to integrate knowledge and to analyse, evaluate and deal with complex phenomena, issues and situations even with limited information
- demonstrate the ability to identify his or her own need for further knowledge and to take responsibility for the development of his or her own knowledge
- demonstrate an ability to, both orally and in writing, present and discuss conclusions and the knowledge and arguments on which these are based in dialogue with different groups
- give constructive criticism in a thesis work
- demonstrate the skills required to take part in research and development work

Course Content

The thesis work is an independent piece of engineering work, built on knowledge gained throughout the course. An independent piece of engineering work denotes that the student shall, by means of critical thinking, analyse different situations and solve problems with regards to the overall situation within a given time frame. The thesis project can be carried out either as an industrial or academic project, national or international. An industrial project should be performed in cooperation with an external industry or organisation. An academic project should be carried out at an academic institution. The work includes formulating the goal and purpose of the project. Thereafter, the student carries out studies of literature followed by project work. The results of the project should then be analysed and evaluated. The project should be summarized as a written report and defended at a

seminar.

Assessment

Oral and written report of project proposal, 1 Credit (U-G)

Individually written report, oral presentation and opposition of a class peer's project presentation, 29 credits (A-F)

Forms of Study

Introductory lecture. Independent thesis, one or two students, with supervision.

If the thesis project is carried out by two students, it has to be clear in the report which part of the work has been done by which student in order for an individual grade to be set.

Grades

The Swedish grades A–F.

Prerequisites

Degree of bachelor of science in engineering (mechanical, electrical, energy, engineering physics) or equivalent of at least 180 credits. Courses of at least 30 credits in total in the 60 credits master program in Solar Energy Engineering should be completed.

Other Information

Replaces EG3010.

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
2. Solar Energy Engineering

Progression Indicator within (each) main field of study:

1. A1E
2. A1E



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