



HÖGSKOLAN I GÄVLE

Degree project for a Master of Science with major in Energy Systems 15 cr

Degree project for a Master of Science with major in Energy Systems 15 hp

Set by Faculty of Engineering and Sustainable Development

Version	Set at	Valid from
	5/12/11	VT2011

Level	A2E
Education level	Second cycle
Course identifier	ETA800
Credits	15 cr
Main field of study	Energy Systems
Subject group	Energy Technology
Disciplinary domain	Technology 100.0 %

Learning outcomes	After completion of the course the student shall be able to <ol style="list-style-type: none">1. independently plan, execute and present a scientific degree project in the field of Energy Systems2. apply a scientific approach shown by the choices and application of methodology and by critical assessment of these choices3. use and reflect on scientific theories and literatures within the field. This includes making a literature review and defining relevant concepts in use4. specify how the findings in the project contributes to existing scientific knowledge within the field5. write a thesis and demonstrate good proficiency in oral and written communication.
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Course content	Independent work, corresponding to 10 weeks of full-time work, where earlier knowledge acquired in previous courses is applied Project proposal Literature study Studies and/or field work related to the specific project Master thesis writing
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	Presenting and defending of thesis Opposition of other students thesis.
Teaching	Project supervision and seminars The work is done individually or in groups of no more than two people. The supervisor(s) is appointed in consultation with the subject responsible of Energy Systems. The supervisor must be involved during the writing of the project proposal, in order to make arrangement, content and limitations of the project and thesis in agreement with the requirements of extent and academic depth of the thesis, as well as during planning of the work. The supervisor supports the student to get familiar with scientific approach and methodology. A time schedule is made and the supervisor should be engaged in the work enough to certify that the work is progressing according to the intended time schedule. More than one supervisor may be appointed depending on the content of the project. If the project is carried out in a company or similar, the practical part of the supervision may be handled there. The scientific supervision is normally received from the university.
Prerequisites	Approved courses of minimum 30 credits on advanced level in the master's programme of Energy Systems. Main courses related to the theme of the project need to be finished.
Examination	Thesis report, oral presentation, opposition.
Grade	A, B, C, D, E, Fx, F
Limitations	For degree project work performed in industry or equivalent, rights to e.g. patents and ownership have to be stated in a written agreement before starting the work. After examination and approval of the examiner, the thesis is official and treated as a public document. The degree of publicity may be limited partly or totally by means of an agreement of confidentiality. Such an agreement of confidentiality is made with the University of Gävle, normally at the time when the project is formulated. However, a minimum requirement is that the official part of the thesis consists of an abstract in either Swedish or English.
Other regulations	Degree Criteria for final grade will be given by examiner or course responsible latest at the beginning of the course. The report is written in either Swedish or English. If the work is confidential, the thesis has to be presented in two versions. One complete version is presented to the examiner and supervisors, and another version to the public where confidential parts are omitted. The thesis is defended publicly in a seminar. The student must also act as an opponent of another thesis.
Sustainable environment	A minor part of the course content deals with sustainable development.
Module	0010 Examination 15 cr Grade: AF