Faculty of Engineering and Sustainable Development
Akademin för teknik och miljö

SYLLABUS

HÖGSKOLAN I GÄVLE

Degree Project for a Master of Science with a Major in Energy Systems 30 cr

Examensarbete för en masterexamen med huvudområdet Energisystem 30 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	ETA801
Credits	30 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:
1. independently plan, execute and present a scientific degree project in the field of Energy Systems
2. apply a scientific approach shown by the choices and application of methodology and by critical assessment of these choices
3. use and reflect on scientific theories and literatures within the field. This includes making a literature review and defining relevant concepts in use.
4. specify how the findings in the project contributes to existing scientific knowledge within the field.
5. write a thesis and demonstrate good proficiency in oral and written communication.

Course content

Independent work, corresponding to 20 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

	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 responisble 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.
Prerequisites	Approved courses of minimum 60 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, be present at presentations of at least another two theses.
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
Other regulations	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 and be present at presentations of at least another two theses before graduating. These activities are noted in a personal examination record (the examination Book) by the examiner in duty.
Sustainable environment	A minor part of the course content deals with sustainable development.

Module

0010	Examination	30 cr	Grade: AF