



Faculty of Health, Science and Technology  
Environmental and Energy Systems

## Syllabus

### Course Approval

The syllabus was approved by the Faculty Board of Health, Science and Technology on 29 August 2013, and is valid from the Spring semester of 2014 at Karlstad University.

**Course Code:** EMGC14

**Energy and Environmental Technology: Degree Project, 22.5 ECTS Credits**

**(Examensarbete för högskoleingenjörsexamen i energi- och miljöteknik, 22.5 Swedish credit points)**

**Degree Level:** Bachelor

**Progressive Specialisation:** G2E (First cycle, has at least 60 credits in first-cycle course/s as entry requirements, contains degree proj. for B.A./B.Sc.)

### Language of Instruction

The language of instruction is Swedish but some components may be taught in English.

### Prerequisites

The course is open to students who, beyond the degree project credits, have completed all but 30 of the required credits for the Bachelor's degree.

### Major Field of Study

MEI (Environmental and Energy Systems)

### Learning Outcomes

The aim of the degree project is that students develop and demonstrate the knowledge and skills required for professional work as a Bachelor of Engineering.

#### Knowledge and understanding

For a degree project Pass grade, students should be able to:

- demonstrate specialised knowledge in the chosen technological area.

#### Skills and abilities

For a degree project Pass grade, students should be able to:

- critically, independently and creatively identify, formulate and deal with engineering problems,
- plan and carry out tasks within specified time limits using the appropriate engineering methods,
- critically and systematically integrate knowledge acquired in the course of the programme,
- clearly present and discuss their results and the knowledge and arguments on which these are based, orally and in writing,
- present ways in which their project results could contribute to sustainable development orally or in writing,
- perform information searches and independently identify relevant information,
- write a report conforming to standard practice in science as regards disposition, formal aspects and correct referencing.

#### Judgement and approach

For a degree project Pass grade, students should be able to:

- assess a fellow-student's degree project or equivalent in terms of relevant scientific and ethical aspects.

### Content and Form of Instruction

The purpose, aim, method and time plan of the degree project must be approved by the examiner before the work is begun. Students are then assigned a supervisor.

If two students collaborate on a project, their individual problem formulations must be clearly indicated from the start. The students are required to submit separate reports.

Students are required to conduct, manage, perform and present the project problem independently.

Students are responsible for the process and the result. Instruction is in the form of supervision and seminars.

### Reading List

See separate document.

### Examination

Assessment is based on problem formulation, implementation, written report, oral presentation and performance as seminar discussant.

The examiner awards a grade in consultation with the supervisor.

On the first notification of a Fail grade after the end of the course period, students can no longer claim the right to supervision. The number of examination opportunities for the course is limited to five.

### Grades

One of the grades Fail (U), Pass (G), or Distinction (VG) is awarded in the examination of the course.

### Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course assessment is based on student views and experiences as reported in written course evaluations and/or group discussions. Students will be informed of the result of the evaluation and of the measures to be taken.

### Course Certificate

A course certificate will be provided upon request.

### Additional Information

Students who enrolled before 1 July 2007 will complete their studies in accordance with the requirements of the earlier admission. Upon completion students may request degree and course certificates to be issued under the current ordinance if they meet its requirements.

The local regulations for studies at the Bachelor's and Master's levels at Karlstad University stipulate the obligations and rights of students and staff.