



ME2087 Energy Business 6.0 credits

Energiföretagande

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for ME2087 valid from Spring 2015

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Industrial Management

Specific prerequisites

ME1003 Industrial Management, Basic Course, or the equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

On completion of the course the students should be able to :

- analyse the technical structure of different energy systems and institutional preconditions
- evaluate different forms of entrepreneurship and companies based on different core and support processes in the energy systems, both in extent (local, regional, national, international) and in time (epochs)
- analyse the businesses that can be developed in different parts of the energy value chain with different energy technologies, energy types, energy services, customer categories, geographic markets, financial instruments, etc.
- be able to analyse the function of energy markets
- be able to analyse strategies both on company and policy level regarding the transformation of energy systems and energy markets
- be able to assess the effect of climate changes on the transformation of the energy systems
- be able to develop a business plan for an existing or newly started energy businesses where the technical as well as the environmental and economical preconditions appear.

Course contents

The basic perspective of the course is to see the energy supply as a socio-technical system which requires in-depth understanding about:

- energy sources and energy technology
- economical and institutional relations
- the interplay between these.

Regarding energy sources and energy technology, the course deepens the knowledge that has been given in earlier courses within the program. When it comes to economical and institutional relations the course uses basic economical and social sciences theories.

The course should give a broad understanding of such mechanisms that are relevant both on a local and a global level and it should highlight relations in both mature industrialised countries and developing countries at different stages.

The course contains a lectures that deepens the knowledge of an energy sector in a state of considerable transformation. Important themes for the course are how the energy business of today and tomorrow is influenced by:

- re-regulation
- privatisation
- internationalisation
- technical development
- environmental adaptation
- raw material shortage

- increased requirements of comfort and security

The lectures also have an emphasis on how the interplay between the properties and development of the energy systems on one hand, and energy companies and the energy business on the other, creates business opportunities. Questions about what typically characterises the energy sector regarding investments, funding, financial control, organisation, staff, working environment, gender equality, sustainability, etc., will also be brought up.

The course contains seminars/project work with a focus on critical review and evaluation of the applicability of the theoretical concepts from the field, to handle and lead energy companies under pressure for change, and on work with concrete business plans in the field.

Lectures and the seminars also intend to analyse and critically discuss current research in the area, with an emphasis on innovation and entrepreneurship from an evolutionary industrial perspective.

Course literature

Forskningsartiklar (10-15) + ev. lärobok - meddelas vid kursstart // Articles (10-15), Text-book will be announced at the beginning of the course.

Examination

- SEM1 - Seminar, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 4.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The course is examined through a written examination (or possibly a take-home examination) and seminar assignments/project work/business plans with a focus on the ability to critically analyse and discuss the consequences of technical and industrial processes of change.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.