MJ2663 Environmental Management 6.0 credits

Miljömanagement

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

Establishment

Course syllabus for MJ2663 valid from Autumn 2007

Grading scale

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

Education cycle

Second cycle

Main field of study

Chemistry and Chemical Engineering

Specific prerequisites

At least two years of academic studies in a program of engineering, or natural science or course MJ1502 (3c1330) or corresponding knowledge.

Language of instruction

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

Intended learning outcomes

The overall aim of the course is to provide theoretical and applied knowledge and understanding of strategies, forces and current approaches to management of environmental development and to changes in companies and organisations due to the increased focus on environmental matters. The course will also provide knowledge about the different tools that may be used in the environmental work of a company.

This means that after the course the student should be able to:

- Describe and explain motivations and forces for the development of environmental management systems in companies and organisations.
- Describe current environmental management systems aiming at implementing and sustaining a systematic and efficient environmental operation of a company.
- Apply environmental management standards such as EMAS and ISO14001 for developing environmental policies, targets and programmes.
- Identify and evaluate the environmental aspects of a company or organisation based on a description of and mass and energy balance data of a production unit.
- Identify need and develop plans for environmental education and competence development for staff and employers
- Develop and formulate procedures for implementation and operation of an environmental management system
- Describe the processes for certification and registration of an EMS according to ISO 14001 and EMAS
- Describe and explain the different parts of the most important tools for environmental monitoring and planning, such as Environmental Impact Assessment, Environmental Auditing and Life Cycle Analysis.

Course contents

Strategies, motivations and forces to implement and develop environmental management systems in companies and organisations. Current environmental management systems aiming at implementing and sustaining a systematic and efficient environmental operation of a company. Environmental management standards such as EMAS and ISO1400 for developing environmental policies, programs and management organisations are covered. The course also addresses the tools for environmental monitoring and planning, such as Environmental Impact Assessment, Environmental Auditing and Life Cycle Analysis.

Course literature

Welford, R., Corporate Environmental Management Systems and Strategies, Earthscan, 1998

UNEP EMS Training Resource Kit, 2nd edition 2001

ISO 14000 series standards (ISO 14001, ISO14004, ISO 14010, ISO 14011, ISO 14012

Notes from lectures, scientific papers and articles from Internet.

Examination

- ÖVN1 - Exercises, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN4 - Exercises, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN2 - Exercises, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN3 - Exercises, 1.5 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.

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

Other requirements for final grade

In order to receive a passing grade (C) for the course, the reports and presentations of all four exercises must be approved. The final grade is calculated as an average of the grades of the four exercises.
Exercise 1 (ÖVN1; 1,5 hp)
Exercise 2 (ÖVN2; 1,5 hp)
Exercise 3 (ÖVN3; 1,5 hp)
Exercise 4 (ÖVN 4; 1,5 hp)

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.