Faculty of Science

# MVET01, Environmental Science: Applied Industrial and Environmental Economics, 15 credits

*Miljövetenskap: Tillämpad industriell miljöekonomi, 15 högskolepoäng*

**Second Cycle / Avancerad nivå**

## Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2008-06-11 to be valid from 2008-06-11, autumn semester 2008.

## General Information

The course is an elective second cycle component of a degree of Master of Science (120 credits) in environmental science

*Language of instruction:* Swedish

| *Main field of studies* | *Depth of study relative to the degree requirements* |
|---|---|
| Environmental Science | A1F, Second cycle, has second-cycle course/s as entry requirements |

## Learning outcomes

The aim of the course is that students, on its completion, shall have attained the following knowledge and skills:

- Knowledge of the operations, structure, goals and central functions and activities of companies, and of key strategies to improve the environmental problems caused by production, e.g. cleaner production and preventive environmental strategies
- Ability to apply knowledge of methods for product development taking into account the environmental impact throughout the whole life cycle of the product, and of different methods to evaluate environmental work and its results from economic, environmental and social perspectives
- Ability to assess and analyse company documentation, and apply different methods to evaluate the environmental work of companies and the external and

internal drivers of environmental work by designing an environmental management system in accordance with ISO 14001
- Ability to communicate by designing an environmental report Ability to identify different actors in society affecting and shaping the environmental work of companies, and to formulate assessments of environmentally related flows of matter and information in the supply chain to both experts and non-experts
- Expected study skills to independently perform information searches or write reports about environmental problems and existing solutions for specific processes, products and services

## Course content

The course consists of two parts: one presenting the theoretical background of environmental work in organisations, and another based on a project in collaboration with companies from different sectors, aiming to use knowledge and skills in an applied context.
The following topics are presented and discussed during the course:

- Companies, their organisation, different functions and activities, and relevance to different units concerned with environmental issues.
- Measures to decrease environmental problems caused by production, particularly preventive strategies.
- Methods and strategies to decrease the environmental impact of products and services using designs/methods for product development taking into account the environmental impact of products during the entire life cycle of the product.
- Environmental work in the supply chain.
- The work of organisations to systematise environmental work through the use of an environmental management system.
- Audit of the environmental work of organisations.
- Reporting and other types of communication with stakeholders outside the organisation.
- Drivers, conditions and obstacles with regard to environmental work in organisations.

## Course design

The teaching consists of lectures, seminars, exercises and project work. Participation in seminars, exercises and project work is compulsory.

## Assessment

The assessment is based on seminars, written and oral presentation of exercises and project work, and a written exam. Students who failed the regular exam will be offered a re-sit opportunity shortly thereafter.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## Grades

Marking scale: Fail, Pass, Pass with distinction.
For a grade on the course as whole, students must have passed the exercises, group work and exam.

## Entry requirements

To be admitted to the course, students must have 90 credits from science courses including:
- MVEA01 Environmental Science: Basic Course, 15 credits

- MVEC14 Industrial Environmental Economics, 15 credits

- MVEC11 Environmental Law, 15 credits, and

- MVET11 Strategic Environmental Development, 15 credits

# Subcourses in MVET01, Environmental Science: Applied Industrial and Environmental Economics

Applies from H07

0801 Env Sci: Applied Industrial and Environmental Economics, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction