



*Course syllabus*

# Miljösystemanalys: Management för hållbar utveckling Environmental System Studies: Management for Sustainable Development

**FMIF01, 6 credits, G2 (First Cycle)**

**Valid for:** 2023/24

**Faculty:** Faculty of Engineering, LTH

**Decided by:** PLED W

**Date of Decision:** 2023-03-27

## General Information

**Main field:** Technology.

**Compulsory for:** I3

**Elective for:** R4

**Language of instruction:** The course will be given in Swedish

## Aim

Many students will reach positions as directors or as projects leaders in large companies, with activities or production on/for an international market. These positions entail a personal responsibility for, e.g., environmental issues. Under these circumstances, a pro-active perspective, the ability to consider different aspects in advance, is are extremely important.

## Learning outcomes

*Knowledge and understanding*

For a passing grade the student must

- Be able to present an overview of the important environmental and resource issues related to the demands in modern industrialised society.
- Be able to analyse critically the concept of sustainable development.

- Be able to describe and discuss some basic concepts within environmental legislation, and be able to relate them to consequences for companies and organisations.
- Be able to describe and discuss concepts in environmental economics and policy instruments.
- Be able to describe and critically display the foundations of the business life's methods to meet legislation and knowledge demands within the environmental and resource areas.

#### *Competences and skills*

For a passing grade the student must

- Be able to critically analyse strengths and weaknesses of different methods aimed at addressing environmental issues in business and organisations.
- Be able to identify and define a problem relevant to the overall aim of the course, following up with an analysis to present the results in a well-structured paper with proper text references and to defend it during a seminar..

#### *Judgement and approach*

For a passing grade the student must

- Be able to identify and discuss the responsibility and role of companies in relation to sustainability, and to relate these to the demands of society.

## Contents

Description of environmental problems of large geographic range and their consequences, both short- and long-term.

Limitation of resources related to the demands of modern industrialised society (non-renewable and renewable resources, etc.).

Critical appraisal of the concept of sustainable development. Introduction to a life cycle perspective on services and products.

Overview of environmental legislation in relation to the environmental issues: international conventions and how they relate to EU-wide and national legislation. Responsibility for the environment and health in companies.

Introduction to environmental economics and policy instruments within the field of environment and energy (economic, administrative etc.).

Methods used in trade and industry to meet the demands of legislation and the customers through the ISO 14000 standards: environmental management systems, environmental labelling, sustainability reporting, life cycle assessment.

## Examination details

**Grading scale:** TH - (U,3,4,5) - (Fail, Three, Four, Five)

**Assessment:** A written exam at the end of the course and a short midterm exam; both must be passed. A project, written in groups of 4-5 students, is presented and discussed in seminars. Mandatory participation in seminars and guest lectures. In the final grade the project is weighted 1/3, and the written exam 2/3.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

#### **Parts**

**Code:** 0113. **Name:** Project.

**Credits:** 2. **Grading scale:** UG. **Assessment:** Approved project

**Code:** 0213. **Name:** Examination.

**Credits:** 4. **Grading scale:** UG. **Assessment:** Approved written exam

## Admission

**Assumed prior knowledge:** Minimum 90 higher education credits within the program.

**The number of participants is limited to:** No

**The course overlaps following course/s:** FMIF45, FMIF50, FMI031, FMIA01, FMIF20, FMIF35, FMI065, FMIF05, FMIF10, FMIF15

## Reading list

- Ammenberg, J: Miljömanagement: miljö- och hållbarhetsarbete i företag och andra organisationer. Studentlitteratur, 2012. Latest edition. Due to quick development in this field the literature may be changed; this will be communicated at least eight weeks before start of the course.
- Naturvårdsverkets årliga uppföljning av de svenska miljömålen. Latest edition; or other documentation on the Swedish environmental quality objectives.
- Home page of Naturvårdsverket (basics of environmental studies) - or equivalent.
- Additional literature.

## Contact and other information

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