



*Course syllabus*

# Hållbar utveckling Sustainable Development

**FMIF60, 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:** F3

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

## Aim

Processes for developing new technology must consider how they affect sustainable development (the environmental, social, and economic dimensions). This course shall, through an active and critical approach, contribute to a better understanding of what impacts the introduction and use of new technology may have on society and the environment and how societal requirements will affect technology development.

## Learning outcomes

### *Knowledge and understanding*

For a passing grade the student must

- \* Be able to briefly describe important environmental and resource issues in relation to technology development; and in relation to the demands of modern society, including the social and economic aspects of sustainability.
- \* be able to critically analyse the concept of sustainable development from general as well as actor perspectives (eg. companies and organisations).
- \* be able to describe how work towards sustainability can be conducted within companies, organisations and on a societal level.

### *Competences and skills*

For a passing grade the student must

\* Be able to formulate and analyse a problem or an issue and present it in a well-structured report with a correct language and reference system; and be able to both orally and in written form critically examine other reports.

### *Judgement and approach*

For a passing grade the student must

\* Be able to contribute to critical discussions around advantages and disadvantages of different sustainability strategies and the goal conflicts they can lead to.

## Contents

The course addresses important areas of importance for sustainable development, such as energy, climate, resource conservation, waste treatment and chemicals, as well as social and ethical aspects of technology development. The course covers both societal strategies for sustainable development and how companies can address sustainability issues in their work.

Each year a few relevant and topical issues will be chosen to be in focus and critically discussed at seminars. The seminars take their starting points in texts written with different perspectives and the students prepare individually written contributions (in English) in advance of these discussions.

A project, in the form of writing papers in small groups, is introduced at the beginning of the course together with examples of feasible fields for these essays. The groups formulate their own detailed research questions and will during the working process get supervision in a few separate steps. At the end of the course there will be seminars in which the papers are presented and critically discussed through a well-prepared opposition.

## Examination details

**Grading scale:** UG - (U,G) - (Fail, Pass)

**Assessment:** For a passing grade a passed written exam is needed as well as an approved written paper according to given criteria, attendance and active participation at a paper seminar including an approved written opposition, attendance and active participation at discussion seminars and approved written contributions for these seminars. These contributions shall be written in English.

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:** 0122. **Name:** Written Exam and Discussion Seminars.

**Credits:** 3. **Grading scale:** UG. **Assessment:** Written exam, active participation in discussion seminars, submission of discussion material in English. **Further information:** The exam is scheduled in the middle of study period 4.

**Code:** 0222. **Name:** Paper.

**Credits:** 3. **Grading scale:** UG. **Assessment:** Paper writing in groups

## Admission

**Assumed prior knowledge:** Minimum 120 higher education credits within the programme.

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

**The course overlaps following course/s:** FMIF15, FMIF30, FMIF55

## Reading list

- Hedenus F., Persson M., Sprei F: Hållbar utveckling nyanser och tolkningar,. Studentlitteratur, 2018, ISBN: 9789144121871. Latest edition. Due to quick development in this field the literature may be changed; this will be communicated at least 8 weeks before start of the course.

## Contact and other information

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