



## Course syllabus

Faculty of Technology

Department of Built Environment and Energy Technology

1ZT006 Miljöteknik - Inriktning hållbar utveckling, 7,5  
högskolepoäng

1ZT006 Environmental Technology - Sustainable Development, 7.5  
credits

### **Main field of study**

Bioenergy Technology, Environmental Engineering

### **Subject Group**

Energy Technology

### **Level of classification**

First Level

### **Progression**

G1N

### **Date of Ratification**

Approved 2014-10-07

Revised 2023-08-28 by Faculty of Technology. Literature list is revised.

The course syllabus is valid from autumn semester 2023

### **Prerequisites**

General entry requirements and Chemistry 1, Mathematics 3c, Physics 2 or Chemistry A, Mathematics D, Physics B (Field-specific entry requirements 8/A8).

## Objectives

After completing the course the student is expected to:

- Possess a sufficient knowledge to be able to read and understand simpler scientific texts in environmental sciences,
- Be able to select relevant information for a specific problem from available literature and to present this information,
- Be able to explain and critically discuss the value and relevance of simplified sustainability measures such as the “ecological footprint”,
- Be able to describe – in an over-all way and from a sustainability standpoint – different aspects of moderns society and industrial production.

## Content

The course contains the following:

- The earth seen as a closed system
- Conditions for life and diversity – evolution and ecology aspects
- Biomes of the earth and eco-system services
- Bio-accumulation and bio-magnification
- Nomenclature in environmental science
- Development theory and sustainable community development,
- Information search and scientific writing,
- Natural resources and the utilisation of natural resources
- Energy and the use of energy
- Sustainable production
- Consumption and generation of waste
- Environmental management and environmental management schemes
- Purification and separation techniques

## Type of Instruction

Lectures, exercises and individual assessments. Information on compulsory elements is given at the course start.

## Examination

The course is assessed with the grades U, 3, 4 or 5.

Assessment of student performance usually takes place during special examination periods and will be done through project work, laboratory work, assignments and written examinations. Assessment will be both written and oral.

In order to pass, the objectives of the course should be achieved.

## Course Evaluation

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board as well as to the students and filed.

## Credit Overlap

The course cannot be included in a degree along with the following course/courses of which the content fully, or partly, corresponds to the content of this course: The course may not be included in a degree together with other course whose contents completely or partly corresponds with the contents of this course.

Completely overlaps with the course 1ZT001.

## Other

On request, a Swedish University course certificate will be awarded upon successful completion of the course.

## Required Reading and Additional Study Material

Ammenberg Jonas, Hjelm Olof. Miljöteknik För en hållbar utveckling. Andra upplagan. 2023, Studentlitteratur. ISBN: 9789144159355. 256 pages

Skrivboken, Siv Strömquist, latest edition, or Uppsatshandboken, again Siv Strömquist

Svenska skrivregler, Språkrådet, reference copy available at the library

## Referenslitteratur

Jahja Rosman, Yelistratova Anna. Vägvalen för hållbar utveckling. 2021,

ISBN:9789144144870. 194 pages