Linnæus University

Jnr: 2018/3121-3.1.2.2

Course syllabus

Faculty of Technology

Department of Built Environment and Energy Technology

1BT311 Miljöteknik - Inriktning hållbar utveckling, 7,5 högskolepoäng
Environmental Technology for Sustainable Development, 7.5 credits

Main field of study
Energy Technology, Environmental Engineering

Subject Group
Energy Technology

Level of classification
First Level

Progression
G1N

Date of Ratification
Approved by Faculty of Technology 2018-10-31
The course syllabus is valid from spring semester 2019

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 different aspects of sustainable development and, for example 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 tools e.g. LCA and EIA
- Purification and separation techniques

Type of Instruction
Lectures, exercises, seminars and individual assessments.

Examination
The course is assessed with the grades A, B, C, D, E, Fx or F.
The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

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
During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap
The course cannot be included in a degree along with the following courses of which the content fully, or partly, corresponds to the content of this course: Overlaps to a large extent with the courses 1ZT001, 7,5 credits, 1ZT006, 7,5 credits or 1BT301, 7,5 credits.

Other
Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material
Required reading
Relevant reports and articles for the topics in the course, about 700 pages.

Reference literature
Environmental science – towards a sustainable future, Wright/Boorse, Pearson, senaste upplagan, ca 500 sidor