



# AE1707 Innovations for Sustainable Development on a Local or Global Level 7.5 credits

Innovationer för hållbar utveckling på en lokal eller global nivå

This is a translation of the Swedish, legally binding, course syllabus.

## Establishment

Course syllabus for AE1707 valid from Autumn 2014

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

First cycle

## Main field of study

Technology

## Specific prerequisites

Completed upper secondary education including documented proficiency in English corresponding to English A/ English 6. Applicants with non-Swedish upper secondary education is exempt from the requirement of Swedish.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

Describe, problematise and discuss what drives economic, social and technological development and how it impacts the environment.

Describe the role of globalization and technology in development, threats and opportunities.

Analyze and describe what sustainable development stands for environmentally, economically, technically and socially, and how these dimensions are linked to each other.

Describe how historical, political, economic and social structures promote or hinder sustainable development on a national, regional and global scale.

Identify and apply the knowledge which is beneficial to sustainable development, nationally and globally.

Plan, execute and present an independent work which results in an idea/innovation relating to sustainable development.

Be able to participate in a student-driven project and idea competition with a focus on sustainable development, NORQUEST.

## Course contents

The course is an evening class, in English, with a focus on sustainable development, entrepreneurship and innovation at both local and global levels. The aim is for students to develop a concrete proposal (idea / innovation) that promote sustainable development. This can be a technical application, a method / model, a mobile application (App) or the like.

The lectures will partly provide an introduction and examples of different problems found in developed as well as developing countries and demonstrate the role of technology, and provide tools and inspiration for project ideas.

The lectures will deal with different concepts such as sustainable urban development, communication and ICT, energy, water-related issues, the global chemical use, innovation and entrepreneurship, and more. Moreover, various tools for business intelligence and problem analysis, goal setting, written and oral reports, etc. to be treated.

The student will undertake a feasibility study with a problem inventory of "a sustainability issue" and then propose a solution, innovation, presented in a "Concept Note", which can participate in a student-driven ideas competition sponsored by the business community.

## Disposition

The course is an evening class, in English, where speakers from KTH and various agencies, companies and organizations will share their knowledge and experience.

The course consists of a lecture block, homework assignments and an essay presented in writing and orally.

The essay shall consist of a well-informed proposal to be able to participate in a design contest or be the basis of a degree at the bachelor's or master's level (eg support a MFS application).

## Examination

- SEM1 - Seminar, 1.5 credits, grading scale: A, B, C, D, E, FX, F
- INL1 - Assignment, 2.0 credits, grading scale: P, F
- PRO1 - Project Proposal, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- ANN1 - Attendance, 1.0 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

If the course is discontinued, students may request to be examined during the following two academic years.

## Other requirements for final grade

- ANN1 - Attendance, 1.0 credits , grade scale : P, F
- INL1 - Assignment, 2.0 credits , grade scale : P, F
- PRO1 - Project Proposal , 3.0 credits, grade scale: A , B, C , D, E , FX, F
- SEM1 - Seminar , 1.5 credits, grade scale: A , B, C , D, E , FX, F

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.