



COURSE DESCRIPTOR

Introduction to Strategic Sustainable Development

Introduktion till strategisk hållbar utveckling

7,5 ECTS credit points (7,5 högskolepoäng)

Course code: MI2407

Educational level: Advanced level

Course level: D

Field of education: Technology

Subject area: Environmental engineering

Version: 1

Applies from: 2008-09-01

Approved: 2008-05-13

Replaces course descriptor approved: 2007-03-09

1 Course title and credit points

The course is titled Introduction to Strategic Sustainable Development/Introduktion till strategisk hållbar utveckling and awards 7,5 credit points. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval

This course is established by The Board of the Department of Mechanical Engineering 2008-05-13. The course descriptor is approved by The Board of the Department of Mechanical Engineering and applies from 2008-09-01.

3 Objectives

The purpose of this course is for the advanced student studying any specialty to learn about the core concepts of Strategic Sustainable Development (SSD). The students will gain understanding in the major sustainability challenges facing our society today, and learn the importance of taking a whole-systems perspective when trying to identify problems and plan solutions. In the latter portion of the course, students will be asked to assess the strengths and weaknesses of various common tools and concepts related to sustainable development, and provide recommendations on their most appropriate uses.

4 Content

The course will cover:

Module 1: Core Concepts of SSD

- Today's environmental problems from a systems perspective
- The cyclical processes in nature, vs. the traditional linear use of materials in today's society
- How to use a systems view and strategic planning for sustainable development
- Principles of sustainability stemming from basic science: thermodynamics, energy, biological systems

and social systems

Module 2: Applications of SSD understanding

- Various tools and concepts currently in use for sustainable development, and their individual strengths and limitations.

5 Aims and learning outcomes

On completion of the course the student will:

- Be able to discuss some of the sustainability challenges facing today's society, including some of the causes of both environmental and society problems.
- Be able to describe the major components of a framework for strategic sustainable development.
- Be able to independently apply the strategic planning tool (the ABCD analysis) to an organization.
- Be able to describe different tools and concepts relevant to sustainable development and demonstrate the ability to apply the SSD framework to describe how these tools and concepts are best utilised.

6 Generic skills

The following generic skills are trained in the course:

- Written and verbal communication skills
- Time management and planning
- Creativity and problem solving
- Research and writing skills
- Self-directed learning
- Apply knowledge in practical applications
- Cross-cultural and cross-sectoral learning
- Critical thinking and creation of original ideas

7 Learning and teaching

This course is offered to a wide range of graduate-level students in a variety of different educational backgrounds. Through videos, lectures, group dialogues, and assigned readings, students will gain an understanding of the course content.

Students will complete assignments on an individual or small group basis, and will share his/her learnings with others through his/her written documents, group discussions and short presentations. There will be a final written examination, and when taken via distance (online) a final oral examination will also be included. The course will be provided in English.

8 Assessment and grading

Examination of the course

Code	Module	Credit	Grade
0810	Sustainability study: ABCD	2 hp	F/P/3/4/5
0820	Sustainability study: Tools	2 hp	F/P/3/4/5
0830	Examination	3.5 hp	F/P/3/4/5

The course will be graded Fail, Pass, 3, 4 or 5. The course evaluation consists of written reports and short presentations for the assignments, and written and/or oral examination tests (written examinations for campus courses, and a combination of written and oral examinations for distance (online) courses). Grades: <3 Fail, 3= Passed, 4= Passed with Credit, 5= Passed with Distinction
On request grades according to ECTS will be given.

9 Course evaluation

The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

10 Prerequisites

This course is open to all students having at least 180 ECTS credit points of University study (or the equivalent), or any Bachelor's Degree equivalent to the Swedish Bachelor's. English language requirements are English A (minimum score of IELTS 5.0 or TOEFL 500) (or the equivalent).

11 Field of education and subject area

The course is part of the field of education Technology and is included in the subject area environmental engineering.

12 Restrictions regarding degree

The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

13 Course literature and other teaching material

- Robèrt, Karl-Henrik et al. 2007. Strategic Leadership Towards Sustainability. Karlskrona, Sweden: Blekinge Institute of Technology.

