



COURSE SYLLABUS

Sustainable Design, 7.5 credits

Hållbart byggande, 7,5 högskolepoäng

Course Code:	THBC19	Education Cycle:	First-cycle level
Confirmed by:	Dean May 20, 2009	Disciplinary domain:	Technology (95%) and social sciences (5%)
Valid From:	Aug 1, 2010	Subject group:	BY1
Version:	1	Specialised in:	G2F
		Main field of study:	Civil Engineering

Intended Learning Outcomes (ILO)

After completion of the course the student should:

- have knowledge of, and be able to give an account of, the fundamentals of ecology and the cycle of nature
- have knowledge of, and be able to give an account of, society's turnover of natural resources and its consequences
- have knowledge of, and generally be able to give an account of, the global and national environmental problems
- have knowledge of, and be able to give an account of, our national environmental goals
- have knowledge of, and generally be able to give an account of, the current legislation in the environmental area
- have knowledge of, and generally be able to give an account of, sustainable planning on a municipal level
- have knowledge of, and be able to give an account of, the effect of buildings and constructions on the environment
- have knowledge of, and be able to describe, different factors for sustainable ecological planning and economical resource efficiency in building-design
- have knowledge of, and be able to describe, different water and waste systems for a sustainable society
- have knowledge of, and be able to give an account of, different energy and ventilation systems for a sustainable society
- be able to show the ability to perform energy calculations for a single-family house or rowhouse
- have knowledge of, and be able to give an account of, sustainable construction techniques and sustainable material selection
- have knowledge of, and show the ability to handle the design of a sustainable construction project with consideration of the conditions of a place and the connection to its context
- have knowledge of, and be able to give an account of, environmentally sustainable production, selective demolition and the handling of remaining products
- have knowledge of, and be able to give an account of, environmentally sustainable administration and the environmental effects of a building throughout its lifetime

-have knowledge of, and be able to give an account of, recycling and reuse of buildings and materials
-show the ability to - with and without digital tools, in words and images - visualise, present and communicate proposals for a sustainable building project

Contents

To provide a total overview and expanded knowledge on sustainable questions and their solutions in the different stages in the creation and use of buildings, from design, construction and property management to the recycling of buildings.

The contents of the course:

- Buildings and their influence on the environment
- Resource-effective building design
- Materials
- Environmentally sustainable construction
- Sustainable property management
- Reuse

Type of instruction

Lectures and project work.

The teaching is conducted in English.

Prerequisites

General entry requirements and completed course Building Design 7,5 credits (or the equivalent).

Examination and grades

The course is graded Fail (U), 3, 4 or 5.

Compulsory attendance is required for 80% of lectures.

Registration of examination:

Name of the Test	Value	Grading
Examination ¹	3 credits	U/3/4/5
Project work	4.5 credits	U/G

¹ Determines the final grade of the course, which is issued only when all course units have been passed.