



HÖGSKOLAN I GÄVLE

Work Science and Environmental Technology 7.5 cr

Arbetsvetenskap och miljöteknik 7,5 hp

Set by Board of Technology and Built Environment

Version

Set at	Valid from
5/28/08	VT2011
3/11/14	HT2014

Level	G1N
Education level	First cycle
Course identifier	IM710A
Credits	7.5 cr
Main field of study	Industrial Economics
Subject group	Industrial Engineering and Management
Disciplinary domain	Technology 100.0 %

- Learning outcomes** On completion of the course, the student should be able to:
1. account for the technical design of workplaces
 2. describe processes in nature and the interplay between man, environment and technology
 3. account for concepts and methods within environmental control technology and work science
 4. account for how activities should be designed considering good physical and mental working environments on one hand and consideration for the environment on the other hand
 5. understand and describe techniques and strategies for decreased environmental impact
 6. present learning outcomes orally and in written reports.

Course content Work Science gives skills for technical design of workplaces based on:
Work physiology and physical ergonomics
Preventing problems due to physical factors
Elimination of chemical health risks based on studies of chemical health risks
Change processes in companies
Introduction to labour market economics
The importance of legislation for the design of the workplace

The importance of the design of the workplace for the psychosocial environment
 Environmental control techniques and environmental effects:
 Strategies for decreased environmental impact
 Ecology and ecocycles in nature and environmental effects
 Wastewater treatment
 Air and gas cleaning technique
 The industry and environmental technology
 Introduction to environmental legislation, environmental economics and policy instruments

Teaching The course is based on lectures, seminars, laboratory sessions, study visit and supervision of minor essay/project work.

Prerequisites General entry requirements

Examination Written examination, written assignment/project work, laboratory sessions, seminars, exercises, study visits and guest lectures.

Grade A, B, C, D, E, Fx, F

Sustainable environment The majority of the course content deals with sustainable development..

Module

0080	Written examination	4 cr	Grade: AF
0090	Project	2 cr	Grade: UG
0100	Laborations	0.5 cr	Grade: UG
0110	Seminars	1 cr	Grade: UG