



Course syllabus

Faculty Board of Science and Engineering
School of Engineering

0TE001 Teknik för basåret I, 7,5 högskolepoäng
Technology for the Foundation Year I, 7.5 credits

Main field of study

Technology

Subject Group

Other Subjects within Technology

Level of classification

Pre-university level

Progression

G1N

Date of Ratification

Approved by the Board of the School of Engineering 2011-11-22

The course syllabus is valid from autumn semester 2012

Prerequisites

General entry requirements and Mathematics 2a / 2b / 2c, Physics 1b1 / 1a or Mathematics B, Physics A (Field-specific entry requirements 7/A7).

Objectives

Having completed the course the students should:

- Have general information about technology
- Have general knowledge about the material and manufacturing methods
- Be able to describe the relationship between the metal structure and the physical properties, and about application areas of some metal
- Have general knowledge about the relation between the loads and stresses in parts subjected to tensile and shear loads.
- Be able to apply standard engineering methods on simple problems
- Have understanding about the structure and functions of the most common machine elements included in machine designs
- Have understanding for the machine elements role in machine design.

Content

The course covers the following topics:

- General information about the technology
- Basic knowledge about material sciences
- Basic knowledge about manufacturing methods
- Basic knowledge about tensile and shear strength
- Basic knowledge about machine elements and their functions in machine designs.

Type of Instruction

The teaching consists of lectures, exercises and laboratory work. Obligatory attendance is required for some parts of the course. Information concerning this and other necessary information will be given at the beginning of the course.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

Assessment of the student's achievements usually takes place during a specific examination period and may be written and/or oral. Assessment may also be based on submitted written tasks and exercises. The grades for the laboratories are only Passed and Failed. The course grade will be based on the result of the exam.

The course OTE001 is on an upper secondary school level. The course will not be included in an academic degree.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Required Reading and Additional Study Material

Required reading

Eriksson, F, *Maskinelement*, Faktadel, Liber, 2003. Pages 96.

Eriksson, F, *Maskinelement*, Övningshäfte. Liber, 2003. Pages 42.

Inst för Teknik och Design, *Laborationshäfte/arbetsmaterial*,
Linnæus Universitet. Pages 200 (appr.)

Reference literature

Alfredsson, A, mfl. *Teknisk basbok*, Liber, 2003.