



## Course syllabus

Faculty of Technology

Department of Mechanical Engineering

OTE001 Teknik för basåret I, 7,5 förutbildningspoäng

Technology for the Foundation Year I, 7.5 pre-education credits

### Subject Group

Other Subjects within Technology

### Level of classification

Pre-university level

### Progression

G1N

### Date of Ratification

Approved 2011-11-22

Revised 2021-02-18 by Faculty of Technology. Objectives are adjusted.

The course syllabus is valid from autumn semester 2021

### 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
- Demonstrate good knowledge in the technical field
- 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 share 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 share 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 laborations are only Passed och Failed. The course grade will be based on the result of the exam.

The course 0TE001 is on an upper secondary school level. The course will not be included in an academic degree.

Repeat examination is offered in accordance with Local regulations for courses and examination at the first and second-cycle level at Linnaeus University.

If the university has decided that a student is entitled to special pedagogical support due to a disability, the examiner has the right to give a customised exam or to have the student conduct the exam in an alternative way.

## Course Evaluation

During the implementation of the course or in close conjunction with the course, a course evaluation is to be carried out. Results and analysis of the course evaluation are to be promptly presented as feedback to the students who have completed the course. Students who participate during the next course instance receive feedback at the start of the course. The course evaluation is to be carried out anonymously.

## Required Reading and Additional Study Material

### **Required reading**

Nyberg, Yngve, Teknik 1, Year of publication: 2011, latest edition, 304 pages.