



MF2013 Introduction to Fluid Power 6.0 credits

Hydraulik och pneumatik, allmän kurs

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

Course syllabus for MF2013 valid from Autumn 2010

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Mechanical Engineering

Specific prerequisites

Qualified for grade 3 (CMASTE3 /CDEPR3/ CFATE3/M/P/T) and MJ1112/4A1112

Masterstudents: TIPUM/TIPDM/TAEEM

Other students: Students with Bachelor exam or Master exam in Machine Design or similar
The exam should include Applied thermodynamics

Documentetd proficiency in english B or equivalent

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

To acquaint students with the options available for solving energy transmission and control problems using hydraulics and pneumatics. Additionally, the course covers the fundamental knowledge required for students to independently be able to design and construct simple hydraulic and pneumatic systems with the help of available components.

Course contents

The course represents the theory of hydrostatic and pneumatic energy transferral, the energy converters used for this purpose, such as pumps, motors and cylinders, controlling components, such as valves, the properties of various pressure mediums, fundamental system design and applications.

Course literature

Hölcke, J. Arbetsbok i hydraulik och pneumatik.

Olsson, U. & Rydberg, K.-E. Kompendium i hydraulik.

Examination

- LAB2 - Laboratory Work, 0.8 credits, grading scale: P, F
- TEN2 - Examination, 3.0 credits, grading scale: A, B, C, D, E, FX, F
- ÖVN2 - Exercise, 2.2 credits, grading scale: P, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Other requirements for final grade

Laboratory work (0,8 credits). Assignments (2,2 credits). Written exam (3 credits).

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.