

SYLLABUS

Hydraulics 7.5 credits

M0013T

Hydraulik

Course syllabus admitted: Autumn 2023 Sp 1 - Present

DECISION DATE
2019-11-05

Hydraulics 7.5 credits M0013T

Hydraulik

First cycle, M0013T

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Maskinelement	Mechanical Engineering

Entry requirements

In order to meet the general entry requirements for first cycle studies you must have successfully completed upper secondary education and documented skills in English language and Machine Elements and Hydromechanics

Selection

The selection is based on 1-165 credits.

Course Aim

At the end of the course you will be able to

- Use hydraulic symbols to facilitate the drawing of hydraulic circuits
- Categorize, explain and discuss the function of a hydraulic pump, motor, directional, flow and pressure valves
- Design and explain the control function of a hydraulic system
- Formulate and evaluate requirement specifications

Contents

The course contents covers

- Components as pump, motors, cylinders, valves etc. ordinary parts in hydraulic transmissions. Hydraulic fluids.
- Design of hydraulic systems
- Calculation of pressures, flow rates and power efficiencies.
- Analysis of performance of hydraulic components and systems.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures and group work with laboratory experiments

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided.

Written examination and exercises with differential grades.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term “unauthorized aids” refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Overlap

The course M0013T is equal to MTM151

Course offered by

Department of Engineering Sciences and Mathematics

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0004	Laboratory work	U G#	2	Mandatory	A17	
0005	Project work	U G#	1.5	Mandatory	A17	
0006	Written exam	G U 3 4 5	4	Mandatory	A17	

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Niklas Lehto 2019-11-05

Syllabus established

The syllabus was established by the Department of Applied Physics and Mechanical Engineering 2007-02-28, and remains valid from autumn 2007.