

Thermodynamics

Programme course

6 credits

Termodynamik

TMMI44

Valid from: 2017 Spring semester

Determined by

Board of Studies for Mechanical
Engineering and Design

Date determined

2017-01-25

Main field of study

Mechanical Engineering

Course level

First cycle

Advancement level

G1X

Course offered for

- Mechanical Engineering, B Sc in Engineering
- Engineering Electronics

Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

Intended learning outcomes

The course will provide basic knowledge of thermodynamic processes and systems from an engineering perspective. Basic knowledge in measurement technology as well as application of measurement devices in practical applications

Course content

Introduction to engineering thermodynamics, the first law of thermodynamics, systems and processes. Introduction to heat transfer and temperature measurement.

Teaching and working methods

Lectures and classes, one project and laboratory work

Examination

LAB1	Project and Laboratory Work	3 credits	U, G
TEN1	Written Examination	3 credits	U, 3, 4, 5

Grades

Four-grade scale, LiU, U, 3, 4, 5

Department

Institutionen för ekonomisk och industriell utveckling

Director of Studies or equivalent

Johan Renner

Examiner

Joakim Wren

Course website and other links

<http://www.iei.liu.se/mvs/utbildning/grundkurser/tmmi44?l=sv>

Education components

Preliminary scheduled hours: 63 h

Recommended self-study hours: 97 h

Course literature

Additional literature

Books

Cengel and Turner, *Fundamentals of Thermal-Fluid Sciences 4*

Compendia

Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva.