

Engineering Mechanics

Programme course

6 credits

Mekanik

TMME62

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

- Energy-Environment-Management M Sc in Engineering

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.

Prerequisites

Algebra, Calculus.

Intended learning outcomes

The purpose of the course is to give the students an understanding knowledge of the basic laws of classical mechanics, and ability to independently apply the laws on concrete mechanical problems. After the course the student should:

- Know the definitions of the fundamental concepts used in mechanics as presented in the course, such as force, couple, equilibrium, mass center, velocity, acceleration, linear momentum, angular momentum, mass moment of inertia, linear impulse, angular impulse, power, work and energy.
- Be able to define and compute the quantities above in situations in engineering mechanics.
- Be able to prove simpler results that resemble those presented in the course.
- Be able to judge whether a calculated result is reasonable.

Education components

Preliminary scheduled hours: 48 h

Recommended self-study hours: 112 h

Course literature

Additional literature

Books

Meriam, J.L., Kraige, L.G, *Engineering Mechanics* Vol 1 & 2

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.