

SYLLABUS

Linear Algebra and Calculus 7.5 credits M0030M

Linjär algebra och integralkalkyl

Course syllabus admitted: Autumn 2018 Sp 1 - Spring 2022 Sp 4

**DECISION DATE
2018-06-15**

Linear Algebra and Calculus 7.5 credits M0030M

Linjär algebra och integralkalkyl

First cycle, M0030M

Education level	Grade scale	Subject	Subject group (SCB)
First cycle	G U 3 4 5	Matematik	Mathematics

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 Calculus M0029M or equivalent.

Selection

The selection is based on 1-165 credits.

Examiner

Thomas Strömberg

Course Aim

The student shall acquire basic skills in one variable calculus and linear algebra.

Contents

Integration of functions of one variable, primitive functions, generalised integrals, applications. Vector algebra and geometry, vectors and matrices, systems of linear equations, determinants. Computer tools.

Realization

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

Lectures, problem solving, computer tasks.

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 computer tasks.

Overlap

The course M0030M is equal to M0048M, MAM282

Literature. Valid from Spring 2016 Sp 4

R. A. Adams, Calculus: A complete course, Addison-Wesley, Toronto (the latest edition).

Lay D: Linear algebra and its applications, Addison-Wesley, Boston (the latest edition).

Norbert Euler and Marianna Euler: Problems, Theory and Solutions in Linear Algebra: Part 1 Euclidean Space. Bookboon.com

Free online access at <http://bookboon.com/se/problems-theory-and-solutions-in-linear-algebra-ebook>

Course offered by

Department of Engineering Sciences and Mathematics

Items/credits

Number	Type	Credits	Grade
0001	Written exam	6.9	TG G U 3 4 5
0002	Laboration	0.6	TG U G#

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 Mats Näsström 2018-06-15

Syllabus established

The syllabus is approved by the Department of Mathematics and is valid from August 2007.