

Calculus in One Variable I

Programme course

6 credits

Envariabelanalys I

TNIU22

Valid from: 2017 Spring semester

Determined by
Board of Studies for Mechanical
Engineering and Design

Date determined
2017-01-25

Main field of study

Mathematics, Applied Mathematics

Course level

First cycle

Advancement level

G1X

Course offered for

- Civil Engineering, B 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

Introductory course in mathematics

Course content

Functions and their graphs. Elementary functions: logarithm-, exponential- and powerfunctions, trigonometric and inverse trigonometric functions. Complex exponential functions. Definition of limit and standard limits. Continuous functions. Derivative. Rules of differentiations. Higher derivatives. Primitive functions.

Teaching and working methods

The course is given in a sequence of whole math-days containing lectures, tutorials, self-studies and mentor time.

Examination

KTR1	An optional written Test	0 credits	U, G
TEN1	Written Examination	6 credits	U, 3, 4, 5

Grades

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

Other information

Supplementary courses: Calculus in one variable II

Department

Institutionen för teknik och naturvetenskap

Director of Studies or equivalent

George Baravdish

Examiner

Peter Holgersson

Course website and other links

Education components

Preliminary scheduled hours: 66 h

Recommended self-study hours: 94 h

Course literature

Additional literature

Books

Göran Forsling, Mats Neymark, *Matematisk analys. En variabel*
ISBN: 978-91-47-10023-1

Compendia

Göran Forsling, *Övningar i analys i en variabel*

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.