

# Theory of Calculus

Programme course

2 credits

Matematisk fördjupning

TATA72

Valid from: 2017 Spring semester

**Determined by**

Board of Studies for Electrical  
Engineering, Physics and Mathematics

**Date determined**

2017-01-25

## Main field of study

Mathematics, Applied Mathematics

## Course level

First cycle

## Advancement level

G1X

## Course offered for

- Mathematics, Bachelor's Programme

## 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

Courses in Calculus in one variable.

## Intended learning outcomes

To give theoretical knowledges in calculus of one variable. After the course the student must be able to

- cite and use the definitions and theorems of limit, continuity and derivatives.
- prove central theorems in these subjects.

## Course content

Theory of limit, continuity and derivatives.

## Teaching and working methods

Seminars, including oral presentation

## Examination

UPG2 Hand-in Assignments and Presentations

2 credits U, 3, 4, 5

## Grades

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

## Department

Matematiska institutionen

## Director of Studies or equivalent

Jesper Thorén

## Examiner

Göran Bergqvist

## Course website and other links

<http://www.mai.liu.se/und/kurser/TATA72-matnat.html>

## Education components

Preliminary scheduled hours: 22 h

Recommended self-study hours: 31 h

## Course literature

### Additional literature

#### Books

Forsling, G. och Neymark, N., *Matematisk analys, en variabel* Liber

## 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](http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva).