Faculty of Science

MATM16, Mathematics: Topology, 7.5 credits

Matematik: Topologi, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-03-01 to be valid from 2007-07-01, autumn semester 2007.

General Information

The course is an elective course for second-cycle studies for a Degree of Master of Science (120 credits) in mathematics.

Language of instruction: English and Swedish

Main field of studies	*Depth of study relative to the degree requirements*
Mathematics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

The aim of the course is that the student on completion of the course should:

- have developed the ability to communicate mathematics in speech and in writing,
- be familiar with basic concepts and methods within the field of topology,
- have acquired basic knowledge for continued studies in mathematics.

Course content

The fundamentals of the theory of metrical, topological and compact spaces. The Tietze extension theorem and Stone-Weierstrass approximation theorem. Elementary properties of Banach and Hilbert spaces.

Course design

The teaching consists of lectures and seminars. Compulsory assignments may occur during the course.

Assessment

The examination consists of a written examination followed by an oral examination. The oral examination may only be taken by those students who passed the written examination. Students who fail the ordinary written examination are offered a resit examination shortly thereafter.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass, Pass with distinction.

Entry requirements

For admission to the course, English B is required as well as at least 60 credits in mathematics.

Further information

The course may not be included in a degree together with MAT316 Topology 5 credits.

Subcourses in MATM16, Mathematics: Topology

Applies from H07

0701 Examination, 7,5 hp
Grading scale: Fail, Pass, Pass with distinction

This is a translation of the course syllabus approved in Swedish