



# SF2721 Topology 7.5 credits

## Topologi

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

## Establishment

Course syllabus for SF2721 valid from Autumn 2019

## Grading scale

A, B, C, D, E, FX, F

## Education cycle

Second cycle

## Main field of study

Mathematics

## Specific prerequisites

Completed courses SF1677 Foundations of Analysis and SF1678 Groups and Rings.

## Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

## Intended learning outcomes

After the course the student should be able to

- formulate central definitions and theorems within the topic of the course,
- apply and generalize theorems and methods within the topic of the course,
- describe, analyze and formulate basic proofs within the topic of the course.

## Course contents

General topology, compact and connected spaces, quotient spaces. Fundamental group, homotopy, triangulation, singular homology theory, Euler characteristic. Classification of closed surfaces, Jordan's curve theorem. Introduction to fixed point theory: theorems of Brouwer and Borsuk-Ulam.

## Course literature

Announced no later than 4 weeks before the start of the course on the course web page.

## Examination

- TEN1 - Examination, 7.5 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

The examiner decides, in consultation with KTHs Coordinator of students with disabilities (Funka), about any customized examination for students with documented, lasting disability. The examiner may allow another form of examination for re-examination of individual students.

## Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.