



# SF2722 Differential Geometry

## 7.5 credits

### Differentialgeometri

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 SF2722 valid from Spring 2015

### Grading scale

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

### Education cycle

Second cycle

### Main field of study

Mathematics

### Specific prerequisites

150 university credits (hp) including the course "Foundations of Analysis" (SF2713) or corresponding course, and documented proficiency in English corresponding to English B.

### Language of instruction

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

## Intended learning outcomes

To make the students familiar with concepts and results of differential geometry, which can form a basis for further study of the subject and its applications.

## Course contents

Differentiable manifolds and mappings, tangent vectors, vector bundles, differential forms, Stokes theorem, de Rham cohomology, degree of a mapping, Riemannian metrics, curvature.

## Course literature

Information kommer vid kursstart.

## 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.

## 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.