SF2722 Differential Geometry 7.5 credits

Differentialgeometri

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

Establishment

Course syllabus for SF2722 valid from Autumn 2008

Grading scale

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

Education cycle

Second cycle

Main field of study

Mathematics

Specific prerequisites

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

"Differentiable Manifolds", Lawrence Conlon (Reprint of the 2001 2nd ed., 2008, ISBN: 978-0-8176-4766-7)

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.

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

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.