



GÖTEBORG UNIVERSITY

Faculty Board of Science

MMA100 Topology

7.5 credits

Second Cycle

This syllabus is the binding document.

1. Confirmation

The syllabus was confirmed by the Department of Mathematical Sciences on June 15, 2007 to be valid from July 1, 2007. The syllabus was revised on November 23, 2010 to be valid from July 1, 2011. Field of education: Science. Responsible department: Mathematical Sciences.

2. Position in the educational system

The course Topology, 7.5 credits, is one of several single subject courses included in the two-year Masters Program in Mathematical Sciences. The course is also open for eligible students outside the program.

3. Entrance qualifications

The prerequisite for the course Topology is the equivalent of 90 credits in Mathematics, including the course MMG500 Algebraic structures.

4. Course content

Topological spaces and maps. Metric spaces. The quotient construction in topology. Compactness and connectivity. Group actions on spaces and their orbit spaces. The homotopy relation and the fundamental group. Simplicial complexes and maps. Surfaces and their classification.

5. Learning outcomes

After completing the course the student will

- understand the basic concepts of topology
- be able to do mathematical reasoning using them
- have a background necessary for further studies in several areas of mathematics.

6. Required reading

List of required reading enclosed.

7. Assessment

An examination will be given at the end of the course. A student who has failed a test twice has the right to change examiner, unless weighty arguments can be invoked. For this, the student must send a written request to the board of the department.

8. Grading scale

The grades are Fail (U), Pass (G), and High Pass (VG).

Students who are contractually entitled to ECTS grades should inform the examiner about this no later than one week after the start of the course.

Students without such entitlement will not be awarded ECTS grades. Grades will be converted into ECTS terminology according to a standard model approved by the University President.

9. Course evaluation

Oral and/or written course evaluation will be performed. The results of the evaluation will be communicated to the students and will serve as a guide for the development of the course.

10. Additional information

The language of instruction is English unless all involved are Swedish speakers.