

# **SYLLABUS**

## **SUBJECT TOPOLOGY**

**TEACHER ANNA MUREŃKO**

## **COURSE DESCRIPTION**

The aim of the course is to provide student with basic knowledge of topology and its applications, especially in mathematical analysis and geometry. The subjects discusses the following topics: topological spaces, operations on sets in topological spaces (closure, interior, boundary), kinds of sets (dense, nowhere dense, boundary, sets of the first category, and sets of the second category), various ways of introducing topology, continuous maps, homeomorphisms, subspaces of topological spaces, topological products, separation axioms, complete spaces, compact spaces, separable spaces, connected and arcwise connected spaces.

## **ECTS**

6

## **LEARNING OUTCOMES**

Students write two tests during the term. The course ends in an written exam. Students who fail the written exam take an oral exam.

## **GRADING POLICY**

The amount of the received points

- (90% - 100%] of all possible points corresponds to the grade 5 (A)
- (80% - 90%] of all possible points corresponds to the grade 4.5 (B)
- (70% - 80%] of all possible points corresponds to the grade 4 (C)
- (60% - 70%] of all possible points corresponds to the grade 3.5 (D)
- (50% - 60%] of all possible points corresponds to the grade 3 (E)
- [0% - 50%] of all possible points corresponds to the grade 2 (F)

## **TIMETABLE**

The two-hours lectures and two-hours exercises will take place once a week.

## **TEXTBOOK AND REQUIRED MATERIALS**

1. R.Engelking, Genaral Topology, Taylor & Francis, 1977.
2. K. Kuratowski, Introduction to Set Theory and Topology, Pergamon Press, Oxford 1977.
3. M. Zariczny, Topology,  
<http://delta.univ.rzeszow.pl/images/stories/materialy/topeng.pdf>

## **PREREQUISITES:**

Basic knowledge of metric spaces.