

MATHEMATICAL ANALYSIS 1 (6 ECTS)

The main goal of the course is to introduce basic concepts in mathematical analysis, that is, calculus and integration with appropriate applications. General course goals: Students will gain fundamental knowledge in calculus and integration (mathematical analysis). Specific course goals: Through lectures, exercises, readings and problem solving students learn about real functions of one variable, properties of their graphs, elementary functions, limit of a function, continuity, derivative, optimization and integral calculus. All the topics are covered by appropriate examples. The aim of the course is to introduce students to the basic concepts of differential and integral calculus of real functions of one real variable, including the concept of an infinite series of numbers and functions, convergence and display of functions by power series.