

Study programmes: Bachelor studies – Mathematics				
Course name: Topology A				
Lecturers: Siniša Vrećica, Aleksandar Vučić, Vladimir Grujić, Branislav Prvulović				
Status: Compulsory				
ECTS: 5				
Attendance prerequisites: Analysis 1				
Course aims: Getting familiar with basic notions of topology				
Course outcome: After completing the course, a student understands the basic notions of topology. He/She is familiar with many examples of topological spaces, with main topological invariants such as compactness, connectedness etc., with some basic constructions such as topological product, topological quotient etc. He/She is also familiar with homotopy, homotopy equivalences of maps and spaces; and knows what homotopy invariance is.				
Course content:				
<ul style="list-style-type: none"> - Metric and topological spaces - Continuous functions, topological equivalence, topological invariants - Separation axioms - Connectedness, local connectedness - Compactness, local compactness - Topological product, Tychonoff's theorem - Quotient maps and quotient spaces - Urysohn's lemma, Tietze extension theorem - Metrization theorems - Homotopy classification - Homotopy and map extension problems - Homotopy and deformation retraction 				
Literature:				
1. M. Marjanović, S Vrećica, Topologija				
2. J. R. Munkres, Topology				
Number of hours: 4	Lectures: 2	Tutorials: 2	Laboratory: -	Research: -
Teaching and learning methods: Lectures / Tutorials				
Assessment (maximal 100 points)				
Course assignments	points	Final exam	points	
Lectures	-	Written exam	30	
Exercises / Tutorials	-	Oral exam	40	
Colloquia	30	Written-oral exam		
Essay / Project	-			