

Study program: Bachelor studies – Mathematics				
Course name: Selected topics of Geometry and Topology				
Lecturers: Vladica Andrejić, Miroslava Antić, Siniša Vrećica, Srdjan Vukmirović, Aleksandar Vučić, Vladimir Grujić, Mirjana Đorić, Branislav Prvulović, Zoran Rakić				
Status: Compulsory				
ECTS: 6				
Attendance prerequisites:				
Course aims: Acquiring general and specific knowledge from global theory of curves and Homology theory; preparing a student for advanced courses in this field.				
Course outcome: Students understand the basic notions and concepts of global theory of curves and homology. Students are trained for independent work and use of acquired knowledge in applied sciences.				
Course content: Global theory of curves; Rotation index of plane curve; Total curvature; Fary-Milnor theorem; Homology theory; Differential forms; Cohomology; Euler characteristic; Integration of exterior forms; Gauss-Bonnet theorem; Map degree and application; other topics agreed upon by two Chairs				
Literature:				
<ol style="list-style-type: none"> 1. N. Blažić, N. Bokan, Uvod u diferencijalnu geometriju, Vesta, Matematički fakultet, Beograd, 1996. 2. А. С. Мишћенко, А.Т.Фоменко, Курс дифференциалној геометрији и топологији, МГУ, Москва, 1980. 3. R. Bott, L. Tu, Differential forms in algebraic topology, Springer 4. J. Matoušek, Using Borsuk-Ulam theorem, Springer, 2003. 				
Number of hours: 4	Lectures: 2	Tutorials: 2	Laboratory: -	Research: -
Teaching and learning methods: Frontal / Individual / Interactive / Tutorials / Lectures / Exercises				
Assessment (maximal 100 points)				
Course assignments	points	Final exam	points	
Lectures	20	Written exam	-	
Exercises / Tutorials	-	Oral exam	40	
Colloquia	-	Written-oral exam	-	
Essay / Project	40			