Course: Generalized Riemannian spaces
Teacher(s): Mića Stanković, Milan Zlatanović
Course status: elective
ECTS: 12
Prerequisites: None
Goal Mastering the theory of Riemann spaces, generalized Riemannian spaces and spaces of affine connection. Introduction to Kahlerian, generalized Kahlerian and other spaces.
Outcomes The student is able to successfully master the fundamental theorems of the theory of Riemannian, generalized Riemannian, Kahlerian, generalized Kahlerian and other spaces.
Contents **Theoretical lectures** 1. Tensor analysis. 2. Spaces of affine connection. 3. Riemannian spaces. 4. Generalized Riemannian spaces in the sense of Eisenhart. 5. Kahlerian spaces. 6. Geodesic mappings of generalized Riemannian spaces. 7. Almost geodetic mappings of Riemannian and generalized Riemannian spaces. 8. Holomorphically projective mappings of Kahlerianr and generalized Kahlerian spaces.
Recommended bibliography 1. M. S. Stanković, Some mappings of the space of non'symmetric affine connection, University of Niš, Faculty of Science, doctoral dissertation, 2001. 2. S. M. Minčić, M. S. Stanković, Lj.S. Velimirović, Generalized Riemannian spaces and spaces of non-symmetric affine connection, Faculty of Science and Mathematics, Niš, 2013. 3. B. Dragović, D. Milinković, Multiple Analysis, Faculty of Mathematics in Belgrade, 2003. 4. N. S. Sinyukov, Geodesic Mappings of Riemannian Spaces, Science, Moscow, 1979. 5. J. Mikeš, Geodesic, F-planar and holomorphic projective mappings of Riemann and affinely connected spaces, Univ. Palacki, Faculty of Natural Sciences, Doctoral dissertation. 6. S.M. Minčić, Generalized Riemann Spaces, Doctoral dissertation, 1976. 7. I. Ivanova-Karatopraklieva, Differential Geometry, Sofia University, 1989.

Number of classes per week	Theoretical: 5	Practical:
Methods of teaching Theoretical lectures and independent work of students during practical hours.		
Knowledge estimation (max 100 points) 50 points on pre-exam and 50 points on oral exam		