

Program		Type of studies (cycle)	Third cycle		
		Name of the program	SEE Doctoral Studies in Mathematical Science		
Course					
Course title		Analysis on manifolds			
Course code	Semester	Course status	ECTS credits	Contact hours	
	II		10	30	
Teaching staff	Teacher	Prof. Dr. Stevan Pilipović			
	Other staff				
Course goals	Minimal goals are to bring a student a basic knowledge on developing a calculus on manifolds Desirable: An independent derivation of differential calculus on manifolds				
Course content/topics					
<ul style="list-style-type: none"> • Manifolds • Vector bundles • Differential calculus on manifolds • Bundle theory • Bundle resolvents • Differential geometry • Riemannian geometry • Generalized functions on manifolds 					
LITERATURE		Grading			
F. Varner , <i>Foundation of Differential Manifolds and Lie Groups</i> , Springer-Verlag, New York-Berlin, 1983. 272 pp Aubin, T. , <i>A course in differential geometry. Graduate Studies in Mathematics</i> , 27. American Mathematical Society, Providence, RI, 2001. 184 pp Grosser, M., Kunzinger, M., Oberguggenberger, M., Steinbauer, R. , <i>Geometric theory of generalized functions with applications to general relativity. Mathematics and its Applications</i> , 537. Kluwer Academic Publishers, Dordrecht, 2001. 505 pp.			Criterion	Points	Cut-off points
		1.	Written assignment		
		2.	Project		
		3.	Final exam		
		Total			