

Program	Level		Second cycle			
	Name of the program		Pure Mathematics			
COURSE						
Course title	Differential Geometry					
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)		
PMAT 480	II	Mandatory course	8	3+2+0		
Lecturer						
Course Goals	The course presents general concepts of topological varieties, differentiable mappings and their properties.					
Learning Outcomes	Understanding the subject matter provides students a more general perspective and concept of the theory of classical curves and surfaces in the 3-dimensional space					
COURSE CONTENT						
<ul style="list-style-type: none"> - Concept of a variety, charts, atlas and examples of projective space and Lie groups. - Differentiable mapping on varieties. - Orientable varieties. - Tangent space. - Derivative of a smooth mapping. - Vector field of a differentiable variety. - Geodesic curves. 						
LITERATURE						
[1] Michael Spivak, A comprehensive introduction to differential geometry, Houston 1999.						
STUDENT WORKLOAD (hours in a semester)						
Lectures	45	Exercises	30	Individual work	125	T o t a l 200
GRADING				REMARKS		
Criterion	Maximum points	Minimum points				
Midterm exams	60	30				
Final exam	40	25				
T o t a l	100	55				