

	UNIVERSITY OF CRIMINAL INVESTIGATION AND POLICE STUDIES		
	11080 ZEMUN, 196, CARA DUŠANA ST.		
	Accreditation of the study program		
	BACHELOR'S DEGREE STUDIES (UNDERGRADUATE ACADEMIC STUDIES)		
	Forensic Engineering		

Standard 05. - Curriculum

Table 5.2 Course description

Teaching course:		Mathematics 2				
Course code: 12.1						
Number of ECTS: 6						
Teacher:		Joksimović D. Dušan				
Course status:		Mandatory				
Number of active teaching hours (per week)						
Lectures:		Exercises:	Other forms of teaching:	Research study paper:	Other classes:	
2		2	0	0	0	
Course prerequisites						
No.	Course code	Course title			Has to be attended	Has to be passed
1.	121	Mathematics 1			Yes	Yes
Conditions:						
1. Learning objective: Students are introduced to the concepts of mathematical analysis n-dimensional real space. Particular emphasis will be placed on acquainting students with multiple integrals, field theory, complex analysis, the Laplace transform, Fourier series, differential equations, as well as with elements of numerical analysis and approximation theory in an effort to enable students to mathematically model and solve problems in a variety of fields using these mathematical tools.						
2. Learning outcomes (Acquired knowledge): Students are trained in the application of advanced mathematics and numerical analysis and tools for mathematical modeling and problem solving across a variety of disciplines.						
3. Course content/structure: Theoretical teaching: Functions of several variables, Curvilinear, multiple and surface integrals, Fundamentals of field theory, Fundamentals of complex analysis, Series, Fourier series and integrals, Laplace transform, Differential equations, Elements of numerical analysis: errors, iterative processes, numerical methods for solving linear and nonlinear equations, interpolation and approximation of functions, numerical differentiation and integration. Practical training: Corresponding assignments from the mentioned areas of theoretical teaching.						
4. Teaching methods: Lectures, exercises, application of mathematical software Matlab and Mathematica.						
Knowledge grading (maximum number of points is 100)						
Pre-exam requirements		Mandatory	Points	Final exam	Mandatory	Points
Preliminary exam		Yes	3,00	Written exam	Yes	70,00
Textbook(s)						
No.	Author(s)	Title		Publisher		Year
1.	Ješić, S. N.	Matematika III. Kompleksne funkcije, Furijeovi redovi i integrali, Laplasova transformacija		Beograd: S. N. Ješić		2011
2.	Milošević, D. M. ; Petković, M. S.	Odabrana poglavlja iz više matematike		Niš : Elektronski fakultet		2008
3.	Kocić, Lj..	Funkcije više promenljivih		Niš : Elektronski fakultet		2008
4.	Stefanović, L. V.	Matematika : za studente tehničkih fakulteta : vektorska analiza, integrali : krivolinijski, dvojni, trojni, površinski : teorija polja		Niš : Prosveta		1997
5.	Milovanović, G. V.	Numerička analiza. Deo 1		Beograd: Naučna knjiga		1991