

Study program: Informatics			
Course title: Mathematics 2			
Professor/assistant: Olga D. Miljković			
Type of course: Compulsory			
ECTS credits: 6			
Prerequisites: none			
Aims of the course: To recognize and master logical thinking in the process of solving problems in professional practice and everyday life. Adoption of well-known mathematical formalisms that can facilitate the process of solving multidisciplinary problems and numerous practical tasks.			
Learning outcomes: After passing the exam, the student will master logical thinking and adopt known mathematical formalisms that can be applied in solving actual problems at further levels of studies. Students are able to use mathematical tools and methods to master professional subjects.			
Syllabus: <ol style="list-style-type: none"> 1. Real functions - properties (domain, zero of function, constraint, parity/irregularity, periodicity, monotonicity, min/max, crossing points, convexity/concavity) 2. Indefinite and definite integrals - integral properties and basic concepts, basic integration methods, integral tables, concept of multiple integrals, methods of solving multiple integrals (indefinite/definite) 3. Differential equations of the first and second order - basic concepts, homogeneous and non-homogeneous equations, methods of solving, particular solution. 4. Elements of numerical analysis - numerical differentiation, numerical integration. 			
Literature: <ol style="list-style-type: none"> 1. O. Miljković, M. Lazić, Matematika za menadžere, Fakultet za inženjerski menadžment, Beograd, 2010 2. Grupa autora, Matematika za više tehničke škole, Savremena administracija, Beograd, 1990 			
Total number of active classes: 75		Lectures: 45	Practical classes: 30
Teaching methods: Lectures, auditory and practical exercises.			
Grading system (maximum 100 points)			
grading scale from 5 to 10: below 51 points – student fails the exam, grade 6 from 51- 60 points, grade 7 from 61-70 points, grade 8 from 71-80 points, grade 9 from 81-90 points, grade 10 from 91- 100 points.			
Pre-exam obligations:	Points:	Final exam:	Points:
Activity during theoretical lectures	max 5	Written exam	50
Practical training	max 5		
Written test(s)	max 40		
Minimum requirement for the final exam	30		