

<b>Study Programme:</b> Computer Science			
<b>Course Unit Title:</b> Mathematical Analysis 1			
<b>Course Unit Code:</b> CS151			
<b>Name of Lecturer(s):</b> Ivana Štajner Papuga			
<b>Type and Level of Studies:</b> Bachelor Academic Degree			
<b>Course Status (compulsory/elective):</b> Compulsory			
<b>Semester (winter/summer):</b> Winter			
<b>Language of instruction:</b> Serbian (primary), English (secondary)			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> Face-to-face			
<b>Number of ECTS Allocated:</b> 8			
<b>Prerequisites:</b> None			
<b>Course Aims:</b> Acquiring basic knowledge and skills in differential calculus and integrations for real functions of one variable, number and power series as well as in some basic ODJ.			
<b>Learning Outcomes:</b> Successful students will be able to recognize the type of a problem and to apply techniques studied during the course. They will be able to use the proper software support.			
<b>Syllabus:</b>			
<ul style="list-style-type: none"> <li>• Some general mathematical concepts</li> <li>• Real functions of one variable</li> <li>• Limits</li> <li>• Differential calculus and integration</li> <li>• Number series</li> <li>• Power series</li> <li>• Basic ODE</li> <li>• Software support (<i>Mathematica</i> or similar)</li> </ul>			
<b>Required Reading:</b>			
<ol style="list-style-type: none"> <li>1. V. A. Zorich, <i>Mathematical Analysis I</i>, Springer –selected chapters</li> <li>2. F. Ayres, E. Mendelson, <i>Schaum's Outline of Calculus</i>, McGraw-Hill BookCompany –selected chapters</li> </ol>			
<b>Weekly Contact Hours:</b> 6	<b>Lectures:</b> 3	<b>Practical work:</b> 3	
<b>Teaching Methods:</b> classical teaching methods – lectures and exercises; students' demonstrations of software.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	Points
Active class participation		written exam	
Practical work	20	oral exam	40
Preliminary written exam(s)	40	.....	
Seminar(s)			
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			