

Study program : Mathematics				
Type and level of studies: Undergraduate academic studies				
<b>Course unit: Educational software 1</b>				
<b>Teacher in charge : dr Tatjana Aleksić Lampert. Assistant Professor</b>				
Language of instruction: <i>English</i>				
ECTS: 6				
Prerequisites:				
Semester : <i>Winter Semester</i>				
<b>Course unit objective</b>				
This course focuses on the knowledge and skills necessary for teaching mathematics in higher education. This course is designed for students interested in an academic career or teaching. Lectures include: designing exam and homework questions, incorporating histories of science, creating absorbing lectures using different software tools. The course is appropriate for both novices and those with teaching experience.				
<b>Learning outcomes of Course unit</b>				
On completion of this course, students will be skilled in using software such as: Power Point, Prosper, Beamer, Mathematics, GeoGebra as well as scaffolding strategies. They will be able to use the software in subsequent courses to prepare their seminars, scientific and teaching material.				
<b>Course unit contents</b>				
<i>Theoretical and Practical classes</i>				
<i>Part 1:</i> Interactive teaching, History of computers in education				
<i>Part 2:</i> How to make a presentation ( Power Point, Prosper, Beamer)				
<i>Part 3:</i> Software: Mathematica and GeoGebra.				
<i>Part 4.</i> Scaffolding strategies.				
<b>Literature</b>				
<ul style="list-style-type: none"> <li>• M. Hohenwarter, J. Hohenwarter, <i>GeoGebra Help</i>, <a href="http://www.geogebra.org">www.geogebra.org</a>.</li> <li>• J. Hohenwarter, M. Hohenwarter, <i>Introduction to GeoGebra</i>, <a href="http://www.geogebra.org">www.geogebra.org</a></li> <li>• Mark S. Gockenbach, <i>Mathematica Tutorial</i>, SIAM, 2010 <a href="http://www.math.mtu.edu/~msgocken/pdebook2/mathtut2.pdf">http://www.math.mtu.edu/~msgocken/pdebook2/mathtut2.pdf</a></li> </ul>				
<b>Number of active teaching hours</b>				<b>Other classes</b>
Lectures:	Practice:	Other forms of classes: <i>mentoring system for small groups of students</i>	Independent work:	
30	30			
<b>Teaching methods</b>				
<b>Examination methods ( maximum 100 points)</b>				
<b>Exam prerequisites</b>	<b>No. of points:</b>	<b>Final exam</b>	<b>No. of points:</b>	
Student's activity during lectures	<b>4</b>	oral examination		
practical classes/tests		practical examination	<b>20</b>	
Seminars/homework	<b>66</b>	tests	<b>10</b>	
Project				
Other				
<b>Grading system</b>				
<b>Grade</b>	<b>No. of points</b>		<b>Description</b>	
<b>10</b>	<b>91-100</b>		Excellent	

<b>9</b>	<b>81-90</b>	Exceptionally good
<b>8</b>	<b>71-80</b>	Very good
<b>7</b>	<b>61-70</b>	Good
<b>6</b>	<b>51-60</b>	Passing
<b>5</b>	<b>0-50</b>	Failing

**(Table 5.2) Course unit description**