

Study program : Mathematics				
Type and level of studies: Undergraduate academic studies				
Course unit: Educational software 1				
Teacher in charge : dr Tatjana Tomović, Assistant Professor				
Language of instruction: <i>English</i>				
ECTS: 6				
Prerequisites:				
Semester : <i>Winter Semester</i>				
Course unit objective				
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.				
Learning outcomes of Course unit				
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.				
Course unit contents				
<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.				
Literature				
<ul style="list-style-type: none"> • M. Hohenwarter, J. Hohenwarter, <i>GeoGebra Help</i>, www.geogebra.org. • J. Hohenwarter, M. Hohenwarter, <i>Introduction to GeoGebra</i>, www.geogebra.org • Mark S. Gockenbach, <i>Mathematica Tutorial</i>, SIAM, 2010 http://www.math.mtu.edu/~msgocken/pdebook2/mathtut2.pdf 				
Number of active teaching hours				Other classes
Lectures: 30	Practice: 30	Other forms of classes: <i>mentoring system for small groups of students</i>	Independent work:	
Teaching methods				
Examination methods (maximum 100 points)				
Exam prerequisites	No. of points:	Final exam	No. of points:	
Student's activity during lectures	4	oral examination		
practical classes/tests		practical examination	20	
Seminars/homework	66	tests	10	
Project				
Other				
Grading system				
Grade	No. of points		Description	
10	91-100		Excellent	

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

(Table 5.2) Course unit description