

Program	Level		Second cycle				
	Name of the program		Mathematics Education				
COURSE							
Course title	Using Computers in Teaching						
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)			
EDU 441	I	Mandatory course	5	2+0+2			
Lecturer							
Course Goals	<ul style="list-style-type: none"> - To educate students on deliberation about mathematical ideas based on computers, - To solve problems more easily and efficiently, i.e., by the application of software tools. - Technology improves math learning by allowing students to research and discover, and broaden the types of problems that can be studied. 						
Learning Outcomes	<p>After the end of this module, students will be able:</p> <ul style="list-style-type: none"> - to create mathematical documents in the LaTeX program tool; - to use GeoGebra application for presentation and solving of various algebraic and geometric problems; - to use Geometer's Sketchpad program tool for the presentation and solving of geometric problems. 						
COURSE CONTENT							
<ul style="list-style-type: none"> - Tex and LaTeX technologies (basic), - Structure and classes of documents, - Functions. Operators. - Creating commands. The input of theorems and definitions. - Floating objects. Graphics. - GeoGebra package. - Geometric input. Examples. - Algebraic input. Examples. - The Geometer's Sketchpad software tool. - Dynamic geometry. Commands. Examples. - Algebraic examples. 							
LITERATURE							
<ol style="list-style-type: none"> 1. Š. Ungar, <i>Ne baš tako kratak uvod u Tex s naglaskom na Latex 2e</i>, Odjel za matematiku Sveučilišta J. J. Strossmayera u Osijeku, Osijek, 2002. 2. O. Hazzan, T. Lapidot, and N. Ragonis, <i>Guide to teaching computer science: an activity based approach</i>, Springer-Verlag, London, 2011. 3. S. Wolfram, <i>The Mathematica book: 5th edition</i>, Wolfram Media Inc, 2003. 							
STUDENT WORKLOAD (hours in a semester)							
Lectures	30	Exercises	30	Individual work	65	T o t a l	125
GRADING				REMARKS			
Criterion	Maximum points	Minimum points					
Midterm exams	100	55					
Final exam	100	55					
T o t a l	100	55					