Program	Level	Second cycle
	Name of the program	Mathematics Education

COURSE

Course title	**Methods of Teaching Mathematics II**			
Course code	Semester	Course status	ECTS	Contact hours (L+AE+LE)
EDU 411	I	Mandatory course	5	2+2+0
Lecturer				
Course Goals	- To teach students how to transfer the knowledge they acquired through previously attended classes to their students, while using all the advantages of modern methods of teaching mathematics. - To complete students' knowledge from methods of teaching mathematics: basic notions, axioms, definitions, theorems and proofs, different types of proofs, necessary and sufficient condition, mathematical problems and their significance. - To introduce students to methods of teaching trigonometry and mathematical analysis.			
Learning Outcomes	- To successfully follow lectures and thus be well prepared for a teacher profession.			

COURSE CONTENT

- Mathematics as a science and as a teaching subject.
- Development of mathematical thinking.
- Introduction of mathematical notions. Basic notions. Definitions.
- Axioms. Theorems. The role of proof in teaching mathematics. Various proof methods in mathematics education.
- About structure of mathematics.
- Place and role of problems in mathematical education and methods of their solving.
- Methods of mathematical reasoning: Analysis and Synthesis. Variation. Analogy. Generalization and Specialization. Abstraction and Concretization. Distinguishing cases.
- Plan and programme. Curriculum.
- Planning and preparation of educational work in the teaching of mathematics.
- Motivation and encouragement for the learning of mathematics.
- Professional orientation through the teaching of mathematics.

LITERATURE

[1] M. Dejić, Metodika nastave matematike, Univerzitet u Kragujevcu, Jagodina, 2000.
[2] M. Marjanović, Metodika nastave matematike I i II, Učiteljski fakultet, Beograd, 1996.
[3] M. Pavleković, Metodika nastave matematike s informatikom I i II, Element, Zagreb, 1999.
[4] S. Petrović, J. Martić i M. Petković, Didaktičko-metodički priručnik za nastavu matematike od V do II razreda osnovne škole, Zavod za udžbenike i nastavna sredstva, Beograd, 1983.
[5] V. Poljak, Didaktika, Školska knjiga, Zagreb, 1966.
[6] G. Polya, How to solve it
[7] Elementary mathematics textbooks and workbooks.

STUDENT'S WORKLOAD (hours in a semester)

Lectures	45	Tutorial	30	Individual work	100	T o t a l	175

GRADING			**REMARKS**
Criterion	Maximum points	Minimum points	
Midterm exams	60	30	
Final exam	40	25	
T o t a l	100	55	