

<b>Course title: Mathematical modelling in teaching</b>			
<b>Lecturers: Zorana Lužanin, Đurđica Takači, Arpad Takači</b>			
<b>Status: elective</b>			
<b>ECTS: 15</b>			
<b>Requirements:</b>			
<b>Course objective:</b> The aim of course is to enable students to carry out independent research in the field of education, didactic-methodical approach by mathematical modelling .			
<b>The outcome of the course:</b> Student will be able for research in science and mathematics education by using mathematical modelling process. Students will develop the ability to apply different didactical methods and approaches to different contents, by using mathematical modelling.			
<b>Syllabus</b> <i>Theoretical instruction</i> Basic principles and methods of modeling, Construction of the model. Checking the mathematical model, Deterministic and stochastic models, Static and dynamic models, Examples of mathematical models.			
<b>Suggested literature:</b> 1) S.K: Houston, <b>W Blun, I. D. Huntley</b> TEACHING AND LEARNING MATHEMATICAL MODELLING - Innovation, Investigation and Applications Albion Publishing Ltd, Coll House, Westergate, Chichester, England, 1997 2) <b>Mary Ellen Davis</b> Elementary Mathematical Modeling: Functions and Graphs Prentice Hall, Copyright: 2001			
<b>Weekly teaching load</b>			Other:
Lectures: 5	Exercises:	Other forms of teaching:	Student research: 5
<b>Teaching methodology</b> Lectures, solving problems with and without computer. Exercises and colloquiums in Computer laboratory.			
<b>Grading (maximal number of points 100)</b>			
<b>Pre-exam requirements</b>	points	<b>Final exam</b>	points
Activities during lectures	<b>4</b>	Oral exam	<b>40</b>
Practical teaching	<b>4</b>		
Colloquia	<b>52</b>		
Seminar papers			