

Programme	Study cycle		First cycle				
	Study programme		Mathematics and Informatics Education				
COURSE							
Name	Methods of Teaching Informatics I						
Code	Semester	Status of the course	ECTS	Contact hours			
EDU390	VI	Mandatory course	6	3+0+2			
Programme teacher							
Course objectives	The aim of this course is to introduce students to the modern approaches in organizing and delivering informatics lessons. The course aims to provide students – future informatics teachers with necessary knowledge and skills to identify student interests, abilities and difficulties, as well as to prepare them to work with advanced students and with students with difficulties in learning informatics.						
Course learning outcomes	In this course, students will be enabled, through their own, independent work, to recognize students' interests and capabilities.						
SUBJECT CONTENT							
<ul style="list-style-type: none"> - Introduction. Basic questions of methodology - organization of classes, teaching aids and procedures for preparing and conducting classes. - Problems in informatics teaching. A comprehensive presentation of the teaching content of informatics and division into thematic units. - Planning of teaching material and sequence of execution. Structure and types of lessons. Teaching procedures. Animating students. Principles of didactic theory and their application in informatics teaching. Cybernetic methods. Heuristic, programmatic and problem teaching. Analysis and synthesis, analogy, algorithmic approach to problem solving. Adaptation of computer content and available teaching materials to the psychology and age of students. - The connection between teaching content, aids and methods of teaching. The ability of teachers to monitor rapid changes in teaching content and teaching methods. Literature for class preparation. The computer as a teaching tool. Software tools for preparing, displaying and distributing teaching content and monitoring success. Internet technology in teaching informatics. - Adaptation of methodical and didactic principles to teaching areas of informatics. Preparation of teaching materials on a computer with the ability to display with the help of a presentation tool or a suitable program environment. - Theoretical introduction, deepening of knowledge, examples, problems and solutions are the basis of processing all teaching areas of informatics. Computer systems. Computer networks and the Internet. Presentation of the basics of logic, computer structure and information in a computer with analog models and simulation programs. Algorithmic way of thinking. - A programming language of the appropriate level of complexity. Program solutions to simple problems via computer. Individual or team use of computers in solving complete problems. 							
LITERATURE							
<p>[1] V. Galešev i dr., Informatika i računarstvo: metodički priručnik za nastavnike, SysPrint, Zagreb, 2006. [2] Kosta Voskresenski, Metodika nastave inforematike [3] Dragana Glušac, Metodika nastave inforematike [4] L. Cassel, R.Reis, Informatics Curricula and Teaching Methods, Kluwer Academic Publishers,2003. [5] M. Pavleković, Metodika nastave matematike s informatikom I i II, Element, Zagreb,(1997),(1999). [6] G. Martinović, Recenzirani nastavni materijali za osnovne i srednje škole</p>							
STUDENT'S WORKLOAD (hours in a semester)							
Lectures	45	Exercises	30	Working alone	75	T o t a l	150
KNOWLEDGE ASSESSMENT AND GRADING				REMARK			
Criteria	Maximum no. of points	Necessary no. of					

		points	
Tests during course	5	3	
Homework assignments	5	3	
Projects	40	21	
Seminar paper	5	3	
Final test	45	25	
T o t a l	100	55	