Faculty of Science and Mathematics / PHYSICS / PHYSICS EDUCATION I

Course:	PHYSICS EDUCATION I						
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exer cises+Laboratory)			
12091	Mandatory	1	4	3+0+0			
Programs	PHYSICS						
Prerequisites							
Aims	This training enables students to develop skills and insights into the processes of teaching a physics. This training should allow them to get insights in epistemiological processes ocure among primary students.						
Learning outcomes	Student will be able to transfer knowlage from fundamental physics area to primary and secondary students on systematic and reasonable way. Student is able to use several teaching methods.						
Lecturer / Teaching assistant	Prof. dr M.Vučeljic						
Methodology	Lectures and seminars with active students participation, individual homework, students presentation, group and individual consultations.						
Plan and program of work							
Preparing week	Preparation and registration of the semester						
I week lectures	Introduction in basic epistemiology						
I week exercises							
II week lectures	Theory of Pieze, Skiner, Vigotski						
II week exercises							
III week lectures	Didactics in kinematics						
III week exercises							
IV week lectures	Didactics in kinematics-extension						
IV week exercises							
V week lectures	Grafical presentation of motion						
V week exercises							
VI week lectures	Grafical presentation of motion-extension						
VI week exercises							
VII week lectures	Students are teaching lessons from kinematics. Discussion						
VII week exercises							
VIII week lectures	Students are teaching le	ssons from kinematics. Dis	cussion				
VIII week exercises							
IX week lectures	Didactics in kinematics-projectile motion						
IX week exercises							
X week lectures	Didactics in kinematics-projectile motion						
X week exercises							
XI week lectures	Didactics in kinematics-circular motion						
XI week exercises							
XII week lectures	Didactics in kinematics-circular motion						
XII week exercises							
XIII week lectures	Students are teaching lessons from kinematics. Discussion						
XIII week exercises							
XIV week lectures	Students are teaching lessons from kinematics. Discussion						
XIV week exercises							

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XV week lec	tures	colocvium						
XV week exe	ercises							
Student wo	orkload							
Per week			Per semester					
 4 credits x 40/30=5 hours and 20 minuts 3 sat(a) theoretical classes 0 sat(a) practical classes 0 excercises 2 hour(s) i 20 minuts of independent work, including consultations 			Classes and final exam: 5 hour(s) i 20 minuts x 16 =85 hour(s) i 20 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 5 hour(s) i 20 minuts x 2 =10 hour(s) i 40 minuts Total workload for the subject: 4 x 30=120 hour(s) Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) 24 hour(s) i 0 minuts Workload structure: 85 hour(s) i 20 minuts (cources), 10 hour(s) i 40 minuts (preparation), 24 hour(s) i 0 minuts (additional work)					
Student obligations								
Consultations								
Literature			A. B. Arons: Teaching Introductory Physics, John Wiley & Sons, (1997), Resnic,Halliday and Krane: Physics, volume 1 and 2 (fifth edition); P.G.Hewit Conceptual Physics T.Petrović Didaktika fizike-teorija nastave fizike, Fizički fakultet u					
Examination methods			Written exams (one brief and final), seminar, homework, estimation of individual presentation of teaching a lessons from physics.					
Special remarks								
Comment								
Grade:	F	E		D	С	В	А	
Number of points	less than 50 points	gr ec ar pc	reater than or qual to 50 points nd less than 60 pints	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points	