

Study program	Level of studies		First cycle	
	Study program name		Physics Education	
Course name	ELECTROMAGNETISM			
Course ID	Semester	Course status	ECTS credits	L+E
PHY3611	III	MANDATORY	6	3+2
Lecturer				
Aims and intended learning outcomes	The objective of the course is to introduce students through lectures and auditory exercises with phenomena in the field of Electromagnetism. It is expected that students successfully adopt the content of the course and that the acquired knowledge is successfully applied in their further academic education and/or scientific work.			
Course content				
Coulomb's law. Electric field. Gauss's law and its applications. Electric potential. Capacity. Dielectrics. Electric current. Electrical conduction in liquids and gases. Kirchhoff's circuit laws. Magnetism. Magnetic property of matter. Biot-Savart's law. Ampere's law. Inductance. Electromagnetic induction. Alternating current. RLC circuit.				
Student workload (hours)		Grading		
Lectures and Exercises	75	Assessment method	Points	
Exam preparation	70	Course Test	60	
Assignments	0	Final Exam	40	
Other	5			
Total	150			
		Total	100	
Literature				
<ol style="list-style-type: none"> <li>1. Lecture Notes</li> <li>2. F.W. Sears, Elektricitet i magnetizam, Naučna knjiga, Beograd, 1962.</li> <li>3. Nikola Cindro: Elektricitet i magnetizam, Školska knjiga, Zagreb, 1988.</li> <li>4. I. Bleaney and B. Bleaney: Electricity and Magnetism, Oxford University Press, Oxford, 1993.</li> <li>5. S. Grant and W. R. Phillips: Electromagnetism, John Wiley &amp; Sons, Chichester, 1995.</li> </ol>				
Remarks				
Partial and final exam consists of a theoretical part and multiple assignments. The maximum number of points in the theoretical part and assignments is 30 and 20, respectively. The successful completion of the course implies achieving at least 55% of the total number of points in both the partial and final exam. All examinations are done by using the written method.				