
		UNIVERSITY OF EAST SARAJEVO Faculty of Technology Zvornik					
		Study programme: Chemical Engineering and Technology					
		Cycle I		Year I			
Course title		TECHNICAL PHYSICS 2					
Department		Department for Non-Core Subjects - Faculty of Technology Zvornik					
Course code		Course status		Semester		ECTS	
04-1-008-2		Compulsory		II		6	
Teacher		Svetlana Pelemiš, PhD, full professor					
Teaching assistant		Srđan Vuković, MSc, senior assistant					
Number of hours/ teaching workload (per week)			Individual student workload (in hours per semester)			Student workload coefficient S ₀	
Lectures	Auditory exercises	Laboratory exercises	Lectures	Auditory exercises	Laboratory exercises	S ₀	
3	1	1	45	45	15	1.4	
3*15+1*15+1*15=75 hours			(3*15*1.4+1*15*1.4+1*15*1.4)=105 hours				
Total course workload 75 + 105=180 hours per semester							
Learning outcomes		After finishing the course, students will be able to: 1. demonstrate and utilize knowledge of physical laws and phenomena which are important for engineering practice 2. demonstrate and utilize the necessary analytical skills 3. apply physical laws in understanding and solving engineering problems.					
Prerequisites							
Teaching methods		Lectures, auditory and laboratory exercises, mid-term tests (colloquia).					
Syllabus outline per week		1. Electrostatics; 2. Stationary electric currents; 3. Stationary magnetic field; 4. Electromagnetism; 5. Electromagnetic oscillations and electromagnetic waves; 6. Preparation for Mid-Term Test/Colloquium 1; 7. Knowledge test (Mid-Term Test/Colloquium 1,...) 8. Geometrical optics; 9. Wave optics; 10. Photometry; Stimulated radiation and lasers; 11. Atomic physics; 12. Nuclear physics; 13. Elements of modern physics; Fundamentals of quantum mechanics; 14. Preparation for Mid-Term Test/Colloquium 2; 15. Knowledge test (Mid-Term Test/Colloquium 2,...).					
Obligatory reading							
Author		Title, publisher		Year	Pages		
D. Mirjanić, J. Šetrajčić		Biofizičke osnove Tehnike i Medicine		2011	1-320		
S. Pelemiš, S. Vuković		Zbirka zadataka iz fizike (sa izvodima iz teorije)		2020	1-277		
Additional reading							
Author		Title, publisher		Year	Pages		
D. Halliday, R. Resnick, J. Walker		Fundamentals of Physics		1997	1-340		
B. Pavlović, T. Mihailidi, R. Šašić		Zadaci iz fizike – praktikum sa zbirkom		1993	1-120		

G. Dimić, M. Mitrinović	Zbirka zadataka iz fizike – viši kurs D	2000	1-250	
G. Dimić, M. Mitrinović	Metrologija u fizici – viši kurs D	2002	1-100	
Obligations, assessment methods and grading system	Type of student evaluation		Grade points	Percentage
	Pre-exam obligations			
	Attendance		6	6%
	Seminar paper		14	14 %
	Mid-Term Test/Colloquium 1		25	25 %
	Mid-Term Test/Colloquium 2		25	25 %
	Final examination			
	Final examination (oral)		30	30 %
Total		100	100 %	
Webpage	www.tfzv.ues.rs.ba			
Date	2023			