

1.1. Course description

NAME OF THE COURSE		General Physics				
Code	PMP090	Year of study	1			
Course teacher	Associate professor Željana Bonačić Lošić	Credits (ECTS)	4,0			
Associate teachers		Type of instruction (number of hours)	P	S	V	T
			30		15	
Status of the course	obligatory	Percentage of application of e-learning	10			
COURSE DESCRIPTION						
Course objectives	Enable acquiring knowledge and student competences in general physics that are useful for further studies and application in their area of expertise.					
Course enrolment requirements and entry competences required for the course	None.					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Student should be able to correctly state and apply the basic concepts and laws of general physics. Student should be able to apply the acquired knowledge to solve simple problems in general physics. Student should be able to apply the acquired knowledge in chemistry and biology.					
Course content broken down in detail by weekly class schedule (syllabus)	Introduction. Measurements. Motion in one, two and three dimensions. Laws of motion. Kinetic energy and work. Potential energy and conservation of energy. Many particle systems. Rotational motion. Gravity. Solids and fluids. Oscillations and waves. sound waves. Temperature, heat and the first law of thermodynamics. Entropy and the second law of thermodynamics. Electric charge. Electric field and potential. Electric currents and resistance. Magnetic field. Maxwell equations. Electromagnetic oscillations and alternating current. Electromagnetic waves. Optics. Wave optics. Relativity. Photons. Matter waves Physics of atom. Laser. Solid state. Nucleus. Radioactivity. Biological systems. Solving problems numerically, introduction to measurements, and measurements of selected physical properties.					
Format of instruction	Lectures with interactive simulations and experiments. Solving problems instructed by assistant. Uninfluenced solving of problems.					
Student responsibilities	Active lectures and exercises attendance.					
Screening student work (name the proportion of ECTS credits for each activity so that the total number of ECTS credits is equal to the ECTS value of the course)	2 ECTS written exam 2 ECTS oral exam					
Grading and evaluating	Preliminary exams. Written exam. Oral exams.					

student work in class and at the final exam	
Required literature (available in the library and via other media)	M. Dželalija, Opća fizika s primjerima fizike bioloških sustava (u pripremi), Sveučilište u Splitu, 2005.
Optional literature (at the time of submission of study programme proposal)	R. A. Serway, J. S. Faughn, College Physics, Fifth Edition, Saunders College Publishing, Orlando, 2000. Earth Systems, Processes and Issues, ed. by W.G. Ernst, Cambridge University Press, 1999.
Quality assurance methods that ensure the acquisition of exit competences	Student's opinion poll.
Other (as the proposer wishes to add)	