

COURSE NAME		Natural Science and the Environment			
Code	PMP162	Year of study	1st and 3rd year of undergraduate study		
Course teacher	Prof. Mile Dželalija, PhD	Credits (ECTS)	4		
Associate teachers		Type of instruction (number of hours)	L	S	E
			30	10	
Status of the course	OPTIONAL COURSE	Percentage of application of e-learning	20%		
COURSE DESCRIPTION					
Course objectives	To understand and apply fundamental physical concepts, laws and approaches in physics and interdisciplinary with other disciplines on the environment.				
Course enrolment requirements and entry competences required for the course	No.				
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<ul style="list-style-type: none"> • Explain and apply the basic thermodynamics to the human environment • Explain the basic composition, structure and dynamics of the atmosphere • Explain the operation of the hydrologic cycle and discuss the mechanisms of water transport in the atmosphere and in the ground • Discuss specific environmental problems such as noise pollution, ozone depletion and global warming in the context of an overall understanding of the environment and the application of the laws in physics • Discuss the problems of energy demand and explain the possible contributions of renewables to energy sources • Understand other environmental issues in relation to laws of physics (selected by students) 				
Course content broken down in detail by weekly class schedule (syllabus)	(5) Application of the laws of thermodynamics (5) Energy transfers (2) Noise pollution (2) Structure and composition of the atmosphere (2) Ozone in the atmosphere (2) Greenhouse effect (2) Earth radiation (2) Global warming (5) Water in the atmosphere and clouds (5) Physics of wind creation (2) Physics of ground (2) Energy demand (2) Renewable energy resources (2) Selected topics				
Format of instruction	Lectures using presentations and discussions with students Solving selected examples, independently and in group work Student presentations and discussions of individuals topics at the seminar				
Student responsibilities	Active participation on classes and assignments. Prepare and present a seminar on a selected topics Solve the given numerical problems by using the concepts and laws from physics				

	Critically discuss selected concepts and laws and their applicability
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: Preparation and presentation of seminar 2 ECTS: Active participation in lectures and self-study of theoretical concepts and laws relevant to the environment
Grading and evaluating student work in class and at the final exam	Preparation and presentation of seminars (50%) Critical discussion of concepts and laws (40%) Solve simple numerical problems (10%) The final grade is formed according to the following list: [50,60>% = D (2) [60,75>% = C (3) [75,90>% = B (4) [90,100]% = A (5)
Required literature (available in the library and via other media)	Nigel Mason and Peter Hughes: Introduction to Environmental Physics: Planet Earth, Life and Climate, Taylor and Francis, 2001. M. Dželalija, Environmental Physics, notes, 2004.
Optional literature (at the time of submission of study programme proposal)	Presentations, examples and course book, M. Dželalija By choice from various disciplines with topics on the environment
Quality assurance methods that ensure the acquisition of exit competences	- Analysis of achieved learning outcomes at the end of the class, compared to those at the beginning of the class - Monitoring the success of students in the following subjects - Other surveys of students according to the rules of the University of Split.
Other (as the proposer wishes to add)	