

NAME OF THE COURSE		Research Work in Environmental Physics				
Code	PMP26C	Year of study	2			
Course teacher	Darko Koračin, PhD, Full Professor	Credits (ECTS)	6			
	Jadranka Šepić, PhD, Assistant Professor					
	Žarko Kovač, PhD, Assistant Professor					
Associate teachers		Type of instruction (number of hours)	L	S	E	F
			10	20	30	
Status of the course	Compulsory	Percentage of application of e-learning				
COURSE DESCRIPTION						
Course objectives	<ul style="list-style-type: none"> - train students for independent research - acquire skills of presentation of scientific results according to the standards of the profession - encouraging independent research 					
Course enrolment requirements and entry competences required for the course	<ul style="list-style-type: none"> - Introduction to Fluid Mechanics - Meteorology 1 - Ocean Physics 1 - Introduction to Data Analysis - Meteorology 2 - Ocean Physics 2 					
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	<ul style="list-style-type: none"> - knowledge of making a physical model for a selected problem in environmental physics - knowledge of research planning - depending on the choice of research topic, knowing specific techniques and Methods of measurement and data processing - depending on the choice of research topic, knowing specific techniques and modelling methods - preparing a written seminar - oral presentation 					
Course content broken down in detail by weekly class schedule (syllabus)	<ol style="list-style-type: none"> 1. Review of current research in environmental physics (10 hours of lectures) 2. Definition of the research problem (*) 3. Literature search (*) 4. Analysis of the theoretical model (*) 5. Presentation of the theoretical foundations of the research topic (10 hours of seminars) 6. Measurements, simulations, development of computer programs (*) 7. Analysis and data processing (*) 8. Presentation of quantitative research results (10 hours of seminars) 9. Writing a seminar (*) <p>* The exact number of hours of practice of each teaching unit depends on the research topic.</p>					
Format of instruction	<input checked="" type="checkbox"/> lectures <input checked="" type="checkbox"/> seminars and workshops <input checked="" type="checkbox"/> exercises <input type="checkbox"/> <i>on line</i> in entirety <input checked="" type="checkbox"/> partial e-learning <input checked="" type="checkbox"/> field work		<input checked="" type="checkbox"/> independent assignments <input checked="" type="checkbox"/> multimedia <input checked="" type="checkbox"/> laboratory <input checked="" type="checkbox"/> work with mentor <input checked="" type="checkbox"/> homework			

Student responsibilities	Attend at least 70% of lectures and 70% of exercises.					
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)	Class attendance	1	Research		Practical training	1
	Experimental work	1	Report		Homework	1
	Essay		Seminar essay	1	(Other)	
	Tests		Oral exam		(Other)	
	Written exam		Project	1	(Other)	
Grading and evaluating student work in class and at the final exam	For the first 5 weeks, the teacher gives lectures on current research topics in environmental physics (models, measurements, instrumentation). By the end of the 5th week of classes, the student chooses a topic and a mentor. Depending on the topic, the student also receives a co-mentor who can be from an external institution. In weeks 6 - 15, the student conducts research by attending individualized exercises adapted to the research topic. At the end of week 10, he presents the theoretical foundations of the research topic. At the end of week 15, the student presents the quantitative results of the research. He then submits a written seminar containing theory and results. Students who do not present theoretical or quantitative results, or do not submit a seminar, lose the right to take the exam.					
Required literature (available in the library and via other media)	Title			Number of copies in the library	Availability via other media	
	- books depending on the research topic					
Optional literature (at the time of submission of study programme proposal)	- papers depending on the research topic					
Quality assurance methods that ensure the acquisition of exit competences	Exam results statistics and student evaluation through an anonymous survey at the end of the course. The survey is conducted according to the regulations of the University of Split.					
Other (as the proposer wishes to add)						