Course name	Environmental Changes and Risks						
Code	PMP168	Year of study	2 D				
Course teacher	Prof.dr.sc. Darko Koračin	Credits (ECTS)	5				
Associate teachers		Instruction type (number of hours)	P	S	AV	LV	KV
			30	15			
Course status	Compulsory	Percentage of application of e-learning	30				

COURSE DESCRIPTION

Course objectives	The course synthesizes main interdisciplinary methods of studying the environment and risks. At the same time, it outlines physical, chemical and biological processes and their relationship with social systems. Lectures concernig sustainable development make up an important part of the course aiming at promotion of this concept within pre-university education.
Course enrolment requirements and entry competences required for the course	• Environmental physics • Statistics and mathematics
Learning outcomes expected at the level of the course (4 to 10 learning outcomes)	Interdisciplinary methods of studying the environment and risks Physical, chemical and biological processes and their relationship with social systems. Sustainable development Scenarios development Policy implementation

Course content broken down in detail by weekly class schedule (syllabus)	Environmental changes – concept and definitions	3
	Interactive processes regulating the entire Earth system Physical, chemical and biological cycles int he environment. “Anthropocene Era” – human –nature interactions at global, regional and local levels.	4
	Types of gobal changes in the environment	4
	Hazards and risks, classification, assessment of vulnerability. Analysis of economic and social impact.	4
	Vulnerability and risks.	4
	Predictability, impacts and migrations. Public regulations related to natural hazards.	2
	Concept of sustainable development. Fourth dimension of sustainable development (economic, social, political and environmental). Quantitative assessment. Levels of sustainable development. Teaching sustainable development in school.	5

Instruction format	x predavanja x seminari i radionice x vježbe ☐ *on line* u cijelosti x mješovito e-učenje ☐ terenska nastava	x samostalni zadaci ☐ multimedija ☐ laboratorij x mentorski rad ☐ (ostalo upisati)
Student responsibilities		

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)						
	Attendance	1	Research		Practical work	
	Experimental work		Report		Homework	
	Essay	1	Seminars	1	Other	
	Colloquium		Oral exam	1	Other	
	Written exam		Project		Other	

Grading and evaluating student work in class and at the final exam	• Written exam • Oral presentation • Oral exam

Required literature (available in the library and via other media)	**Title**	**Number of copies in library**	**From other media**
	Diamond, J. M.: Guns, Germs and Steel: The Fates of Human Societies		

Optional literature	• Bryant, E.A. (1991), Natural hazards, Cambridge University Press • *** (2000), UN Documents on ISDR, • *** (2001), Global change and the Earth System: a planet under pressure, IGBP Science, 4. *** (2004), Global Environmental Issues, Frances Harris (editor), JohnWiley&Sons, Ltd.
Quality assurance methods that ensure the acquisition of exit competences	• 1. Analysis of the acquired learning outcomes at the end of the class, compared with the work of students. • 2. Monitoring the development of students in the subjects who followed the links with the success of the case • 3. Other surveys of students

Other (as the proposer wishes to add)	