

Subject card

Subject name and code	Introduction to environmental photochemistry - lecture, PG_00159336						
Field of study	Oceanography						
Date of commencement of studies	October 2025		Academic year of realisation of subject		2027/2028		
Education level	Bachelor's studies		Subject group		Obligatory subject group in the field of study Optional subject group Subject group related to scientific research in the field of study		
Mode of study	full-time studies		Mode of delivery		at the university		
Year of study	3		Language of instruction		Polish		
Semester of study	6		ECTS credits		1.0		
Learning profile	academic		Assessment form		credit		
Conducting unit	Laboratory of Marine Environmental Protection -> Department of Chemical Oceanography and Marine Geology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Waldemar Grzybowski				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	15.0	0.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	Number of study hours	15		3.0		10.0	28
Subject objectives	Familiarization with the basics of the impact of solar radiation on inanimate components of the environment and with the basic methods of observing these impacts						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	OCEANL3-W02		has knowledge about solar radiation (quantitative and qualitative) and factors determining its variability, knows the basic ones mechanisms of the impact of solar energy on environmental elements (content program: A.1-4)		[SW4] test/exam - oral or written		
Subject contents	A. Topics of the lecture A.1 interaction of electromagnetic radiation with matter; chemical properties of electronically excited substances A.2 basic laws and concepts used in photochemistry A.3 characteristics of solar radiation (spatial and temporal diversity); A.4 specificity of photochemical processes in the environment, absorption of solar radiation in natural waters						
Prerequisites and co-requisites							
Assessment methods and criteria	Subject passing criteria		Passing threshold		Percentage of the final grade		
	exam		51.0%		100.0%		
Recommended reading	Basic literature		Waldemar Grzybowski - Transformation of dissolved organic matter under the influence of solar radiation, 2006, UG Publishing House, Gdańsk				
	Supplementary literature		Blough, N.V., del Vecchio, R., 2002. Chromophoric DOM in the coastal environment. In: Hansell, D.A., Carlson, C.A. (Eds.), Biogeochemistry of Marine Dissolved Organic Matter. Academic Press. https://doi.org/10.1016/B978-012323841-2/50012-9				

	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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