


KAPITAŁ LUDZKI
 NARODOWA STRATEGIA SPÓJNOŚCI

 Projekt współfinansowany przez
 Unię Europejską w ramach
 Europejskiego Funduszu
 Społecznego

UNIA EUROPEJSKA
 EUROPEJSKI
 FUNDUSZ SPOŁECZNY


Course title		ECTS code	
Water monitoring		7.1.0617	
Name of unit administrating study			
null			
Studies			
faculty	field of study	type	first tier studies (BA)
Faculty of Oceanography and Geography	Geography	form	full-time
		specialty	all
		specialization	all
Teaching staff			
prof. dr hab. Julita Dunalska			
Forms of classes, the realization and number of hours		ECTS credits	
Forms of classes		3	
Tutorial			
The realization of activities			
classes outside UG premises, classroom instruction			
Number of hours			
Tutorial: 30 hours			
The academic cycle			
2024/2025 winter semester			
Type of course		Language of instruction	
an elective course		English	
Teaching methods		Form and method of assessment and basic criteria for evaluation or examination requirements	
<ul style="list-style-type: none"> - group work - multimedia-based lecture - project-based method (research, implementation, practical project) - seminar lecture 		Final evaluation	
		Graded credit	
		Assessment methods	
		assignment work – conducting research and presenting results	
		The basic criteria for evaluation	
		After confirming the implementation of learning outcomes, the student obtains a grade depending on the score obtained (51-60% - 3.0; 61-70% - 3.5; 71-80% - 4.0; 81-90% - 4.5; 91-100% - 5.0).	
Method of verifying required learning outcomes			
Required courses and introductory requirements			
A. Formal requirements			
Lack			
B. Prerequisites			
Knowledge of English			
Aims of education			
Familiarization with the basic methods of water monitoring in Poland and in the world. The subject includes auditorium and field classes. Classes carried out in a blocked form at the Limnological Station in Borucino.			
Course contents			
Getting to know the specifics of field work and the laboratory of environmental research, the principles of creating monitoring in Poland (PMŚ) and the flow of information at the national and international level; getting acquainted with the role of volunteers in water monitoring as part of citizen science; performing measurements to assess the condition of environmental components using modern equipment and measurement devices and high frequency data; interpretation of the obtained results of monitoring tests and cause-and-effect analysis.			

Bibliography of literature

GIOŚ. 2020. Strategic Programme of the State Environmental Monitoring for 2020-2025.

GIOŚ, WIOŚ. Reports on the state of the environment in Poland.

Marcé R et al. 2016. Automatic High Frequency Monitoring for Improved Lake and Reservoir Management. Environmental Science&Technology, 50(20): 10780-10794.

The learning outcomes (for the field of study and specialization)

K_W07 P6U_W, P6S_WG
 K_W08 P6U_W, P6S_WG, P6S_WK
 K_U06 P6U_U, P6S_UW, P6S_UO
 K_U08 P6U_U, P6S_UK
 K_K04 P6U_K, P6S_KO

Knowledge

K_W07 Knows the principles of environmental sampling.
 K_W08 Student has well-established knowledge in the field of measurement and interpretation of monitoring data. Knows the indicators of pollution of the aquatic environment.

Skills

K_U06 Is able to select and independently apply basic research techniques and tools, in compliance with established analytical procedures, in the field of aquatic environment research.
 K_U08 Student reads with understanding specialized scientific texts and formulates opinions on water quality in English.

Social competence

K_K04 It is responsible for the protection of the natural environment.

Contact

julita.dunalska@ug.edu.pl