

**Subject card**

<b>Subject name and code</b>	Bioindication and Biomonitoring of Water - field classes, PG_00201438						
<b>Field of study</b>	Water Management and Protection of Water Resources						
<b>Date of commencement of studies</b>	October 2026	<b>Academic year of realisation of subject</b>			2027/2028		
<b>Education level</b>	Bachelor's studies	<b>Subject group</b>			Obligatory subject group in the field of study Subject group related to practical vocational preparation		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	2	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	4	<b>ECTS credits</b>			1.0		
<b>Learning profile</b>	practical	<b>Assessment form</b>			credit		
<b>Conducting unit</b>	Laboratory of Biodiversity and Benthic Functioning -> Department of Marine Ecology -> Faculty of Oceanography and Geography -> Rector						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Halina Kendzierska				
	<b>Teachers</b>						
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	15.0	0.0	0.0	0.0	15
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	15		1.0		9.0	25
<b>Subject objectives</b>	The development of knowledge on assessing the risks of aquatic ecosystems related to human activities, seeking solutions to achieve sustainable management of aquatic areas and to improve the quality of aquatic ecosystems. The learning and selection of methods methods for the biological assessment of aquatic environmental quality and sustainability.						
<b>Learning outcomes</b>	<b>Course outcome</b>		<b>Subject outcome</b>		<b>Method of verification</b>		
	[GWOZWL3-U02] The student can select and independently apply basic research techniques and tools, with adhering to established analytical procedures in the field of environmental research in water management, adequately to the considered research problem.		Ability to select basic research techniques and tools, following established analytical procedures for water biomonitoring		[SU2] presentation/project/paper/report		
<b>Subject contents</b>	B.1. Field surveys in the selected area: river and/or coastal zone of the Gulf of Gdansk: observation, inventory and sample collection; B.2. Visit to institutions conducting research used in biomonitoring i.e. Prof. Krzysztof Skóra Marine Station, IMGW, WIOŚ.						
<b>Prerequisites and co-requisites</b>							
<b>Assessment methods and criteria</b>	<b>Subject passing criteria</b>		<b>Passing threshold</b>		<b>Percentage of the final grade</b>		
	assessment work, reports		51.0%		90.0%		
	activity in class, being prepared for class		51.0%		10.0%		

Recommended reading	Basic literature	Kołodziejczyk, A., Koperski, P., 2000. Freshwater invertebrates of Poland. Klucz do oznaczania oraz podstawy biologii i ekologii makrofauny. University of Warsaw Publishing House. Sea Water Monitoring Programme, Report to the European Commission, 2014, Prepared by the Chief Inspector of Environmental Protection, Warsaw. Wiech A.K., Marciniwicz-Mykieta M., Toczko B., 2018, San environment in Poland Report 2018, Inspekcja Ochrony Środowiska, Biblioteka Environmental Monitoring, Warsaw
	Supplementary literature	Herbich J. (red.) 2004. Siedliska morskie i przybrzeżne, nadmorskie i śródlądowe solniska i wydmy w Poradniki ochrony siedlisk i gatunków Natura 2000 podręcznik metodyczny, Ministerstwo Środowiska, Warszawa. T. 1, <a href="http://natura2000.mos.gov.pl/natura2000/pl/poradnik.php#1">http://natura2000.mos.gov.pl/natura2000/pl/poradnik.php#1</a>
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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