University of Gdańsk

Subject card

Subject name and code	Water Biology - field classes, PG_00201410		
Field of study	Water Management and Protection of Water Resources		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Subject group related to practical vocational preparation
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	1	Language of instruction	Polish
Semester of study	2	ECTS credits	1.0
Learning profile	practical	Assessment form	credit
Conducting unit	Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Justyna Kobos	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	15.0	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	1.0	9.0	25

Subject objectives

The aim of the class is to teach practical skills for working in the field (collection, preservation and description of samples) and in the biological laboratory (preparation of slides and biological analysis of collected material).

Learning outcomes

Course outcome	Subject outcome	Method of verification
[GWOZWL3-U01] make basic observations of processes and phenomena occurring in the hydrosphere and carry out basic measurements of selected processes of water purification on a laboratory scale.	can carry out basic observations of processes and phenomena occurring in the aquatic environment	[SU1] oral statement/conversation/ discussion
[GWOZWL3-U02] 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.	is able to select and independently apply the basic techniques and research tools used in hydrobiology, with established analytical procedures, in the field of environmental research in water management	[SU1] oral statement/conversation/ discussion
[GWOZWL3-K05] take responsibility for the safety of his own work and that of others, dealing with emergencies, exercising caution in the laboratory and in the field, responsibility for entrusted equipment and apparatus.	is ready to take responsibility for the safety of his own work and that of others, to deal with emergencies, to be cautious in the laboratory and in the field, to be responsible for the entrusted equipment and apparatus used in the collection and analysis of biological samples	[SK1] oral statement/conversation/ discussion
[GWOZWL3-U15] by solving in groups the assigned problem situations, is able to appropriately set priorities to achieve task defined by themselves or others.	by solving in groups the assigned problem situations related to the collection and analysis of environmental samples is able to correctly set priorities for the implementation of a specific task	[SU1] oral statement/conversation/ discussion
[GWOZWL3-W01] in advanced basic biological, physical and chemical processes and phenomena, as well as analyzes their mutual relations and course in relation to natural environment and socio-ecological systems.	knows and understands to an advanced degree the basic biological processes and phenomena, as well as analyzes their interrelationships and course in relation to the water environment and socio-economic systems	[SW1] oral statement/ conversation/discussion

Subject contents

The problems of the exercises concern:

1. The ability to properly determine the location and collection of environmental samples (selection of instruments, maintenance, description, proper transportation and storage of samples).

2. The ability to prepare preparations and analyze samples taken from the environment under laboratory conditions.

3. To learn about the interdependence of aquatic organisms and their relationship with the environment.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
worksheets, discussion	51.0%	100.0%

Recommended reading

Basic literature

Burchardt L., 2010, Klucz do oznaczania gatunków fitoplanktonu jezior i rzek - Przewodnik do ćwiczeń laboratoryjnych i badań terenowych. Bogucki Wydawnictwo Naukowe, Poznań

Kolada A. [red], 2020, Podręcznik do monitoringu elementów biologicznych i klasyfikacji stanu ekologicznego wód powierzchniowych - aktualizacja metod. Biblioteka Monitoringu Środowiska, Warszawa

	Supplementary literature	Bąk M., Witkowski A., Żelazna-Wieczorek J., Wojtal A. Z., Szczepocka E., Szulc K., Szulc B. 2012. Klucz do oznaczania okrzemek w fitobentosie na potrzeby oceny stanu ekologicznego wód powierzchniowych w Polsce Główny Inspektorat Ochrony Środowiska, Warszawa Bucka H., Wilk-Woźniak E. 2002. Gatunki kosmopolityczne i ubikwistyczne wśród glonów pro- i eukariotycznych występujących w zbiornikach wodnych Polski południowej. Zakład Biologi Wód PAN, Kraków Picińska-Fałtynowicz J., Błachuta J. 2012a. Klucz do identyfikacji organizmów fitoplanktonowych z rzek i jezior dla celów badań monitoringowych części wód powierzchniowych w Polsce. Biblioteka Monitoringu Środowiska, Warszawa Picińska-Fałtynowicz J., Błachuta J. 2012b. Wytyczne metodyczne do przeprowadzania badań fitoplanktonu i oceny stanu ekologicznego rzek na jego podstawie. Główny Inspektorat Ochrony Środowiska. Warszawa. Szoszkiewicz K., Zbierska J., Jusik S., Zgoła T., 2010b. Makrofitowa Metoda Oceny Rzek. Podręcznik metodyczny do oceny i klasyfikacji stanu ekologicznego wód płynących w oparciu o rośliny wodne. Bogucki Wydawnictwo Naukowe, Poznań
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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