University of Gdańsk

Subject card

Subject name and code	Biology for Oceanographers - laboratory, PG_00205200						
Field of study	Oceanography						
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 scientific research in the field of study			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	1		ECTS credits	3.0			
Learning profile	academic		Assessment form	credit			
Conducting unit	Laboratory of Phycology -> Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Ilona Złoch				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	0.0	0.0	30
	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	30		2.0	43.0	75	
Subject objectives	Introduction to basic research methods of anatomy, morphology and physiology of cells, tissues and organisms.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANL3-U11] is able to work individually and collaborate in a team, assuming various roles and performing different tasks	Student can work individually and in laboratory groups, under the supervision of the lecturer performs microscopic slides and experiments (1-5);	[SU4] test/exam - oral or written
[OCEANL3-K01] is willing to plan and implement, individually or as a team, the subsequent stages of the entrusted task, is willing to take responsibility for the results of these works, effectively cooperates in the team and performs various roles in it	Student is ready to plan and implement, individually or as a member of a team, the successive stages of the given task, eg to make microscopic slides or to perform experiments, feel a sense of responsibility for its results and timely reporting (1-5);	[SK4] test/exam - oral or written
[OCEANL3-W01] has an advanced knowledge and understanding of the terminology used in oceanography and related exact and natural sciences (in Polish and a selected foreign language)	Student knows and understands, at an advanced level, proper terminology used in oceanography, with particular emphasis on biological sciences in the field of cytology, anatomy, morphology and physiology of cells and tissues (1-2);	[SW4] test/exam - oral or written
[OCEANL3-W02] has a broad knowledge and understanding of physical, biological, chemical, and geological processes and phenomena occurring in aquatic environments, with particular emphasis on the marine environment	Student knows and understands the basic processes of the water environment, the structure and function of prokaryotic and eukaryotic cells, identifies and correctly describes the basic physiological processes occurring in cells and knows the factors regulating biochemical processes, with particular attention to marine organisms, describes and explains the various stages of asexual and sexual reproduction, describes particular groups of organisms in the aquatic environment with particular emphasis on the marine environment, describes the basic levels of life oranization in the marine environment (1-5);	[SW4] test/exam - oral or written

Subject contents

The issue of lab classes.
1 Comparison of structure and function of prokaryotic and eukaryotic cells.
2 Understanding the function of each organelle by performing experiments.
3 Observation of given and independently prepared microscopic preparations.
4 Comparison of structure and function of plant and animal tissues.
5 Determination of marine organisms, with particular attention to algae and cyanobacteria.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Test	51.0%	100.0%

Recommended reading

Basic literature

Literature required for the completion of the course:
1. used during classes

- Campbell N., Reece J., Urry L., Cain M., Wasserman S., Minorsky P., Jackson R., BIOLOGIA, wyd. REBIS 2012, Poznań
- Szweykowska A., Szweykowski J., Botanika, tom. I, 2001, Wyd. PWN, Warszawa
- Kawiak J., Mirecka J., Olszewska M., Warchoła J., Podstawy cytofizjologii, Wyd. PWN, 1997, Warszawa

2. studied by the student

- Kopcewicz J., Lewak S., Podstawy fizjologii roślin, 1998, Wyd. PWN, Warszawa

Supplementary literature

Supplementary Literature

- Goodsell D.S., Tajemnice życia co potrafią żywe komórki, 1995, Wyd. Naukowo-Technologiczne, Warszawa
- Schlegel H.G., Mikrobiologia ogólna. 2000, PWN, Warszawa

eResources addresses

Example issues/ example questions/ tasks being completed	Knowledge of the basic elements of the construction and functioning of prokaryotic and eukaryotic cells. Knowledge of basic research methods of cells, tissues and organisms; tests of the program content 1-5.
Work placement	Not applicable

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