University of Gdańsk

Subject card

Subject name and code	Biology for Oceanographers - lecture, PG_00206111		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2026/2027
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	exam
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	30.0	0.0	0.0	0.0	0.0	30

E-learning hours included: 0.0

Additional information:

a lecture with a multimedia presentation

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	1.0	44.0	75

Subject objectives

Introduction to the basics of cytology, anatomy, morphology and physiology. Introduction to a general overview of organisms systematic and the basic concepts of ecology.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[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 (1-10);	[SW4] 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 (1-4);	[SW4] test/exam - oral or written

Subject contents

The issue of lecture
1 Organization of the living world, theories of biogenesis, levels of organization of life, cell theory of organisms body.
2 Structure and function of prokaryotic and eukaryotic cells.
3 Cell cycle. Reproduction of organisms, selected development cycles.
4 Construction of organisms with and without tissues.
5 Methods of organisms feeding.
6 Methods of organisms respiration.
7 Systematics and evolution, organizational levels.
8 Phenetic and phylogenetic classification.
9 Technique for describing and naming taxonomic units.
10 Basic ecological concepts, with particular emphasis on marine ecology.

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

Literature required for the final completion of the course (passing the exam):

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
Solomon E.P., Berg L.R., Martin D.W., Ville C.A., 1996, Biologia, Multico Oficyna Wydawnicza, Warszawa
Kawiak J., Mirecka J., Olszewska M., Warchoła J., Podstawy cytofizjologii, Wyd. PWN, 1997, Warszawa
Stryer L., Biochemia. 2005, PWN, Warszawa ,
Maćkowiak M., Michalak A., Biologia (Jedność i różnorodność), 2008, Wyd. PWN, Warszawa

2. studied by the student

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

	Supplementary literature	1. Alberts B. i wsp. Podstawy biologii komórki. 2005, PWN Warszawa 2. Kilarski, W. Strukturalne podstawy biologii komórki. 2003, Wyd. Naukowe PWN 3. Kłyszejko-Stefanowicz L. Cytobiochemia. 2002, Wyd. Naukowe PWN 4. Wojtaszek P., Michejda J., 5. Ratajczak, Biologia komórki roślinnej. T.1 Struktura, T.2 Funkcja. 2009, Wyd. Naukowe PWN 6. Woźny A. i in. [red.] 2001. Podstawy biologii komórki roślinnej, Wyd. Naukowe UAM, Poznań
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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