University of Gdańsk

Subject card

Subject name and code	Coastal ecosystems, PG_00154465		
Field of study	Biology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	undergraduate studies	Subject group	Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish
Semester of study	6	ECTS credits	1.0
Learning profile	academic	Assessment form	
Conducting unit	Pracownia Geobotaniki i Ochrony Przyrody -> Katedra Taksonomii Roślin i Ochrony Przyrody -> Faculty of Biology		
Name and surname of lecturer (lecturers)	Subject supervisor	dr Magdalena Lazarus	
	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	2.0	8.0	25

Subject objectives

Familiarization with the richness and ecological diversity of coastal ecosystems found in Poland and aroundthe world in relation to natural environmental factors (historical and contemporary) and human activity.Discussion of the causes, directions and effects of changes taking place in the diversity of these ecosystems.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_U07] The graduate should be able to independently search for and use available sources of biological information, including electronic sources	The student searches for and uses available sources of information, including electronic sources about ongoing scientific research projects in the field of functioning of organisms or ecosystems associated with the coast.	[SU2] presentation/project/paper/ report [SU8] observation of student's independent or team work
[BIOLL3_K01] The graduate is prepared to evaluate their own knowledge, understand the need for continuous learning and development, and is open to new ideas	The student knows the limits of their own knowledge and understands the need for constant learning and development.	[SK8] observation of student's independent or team work
[BIOLL3_W07] The graduate is conversant with the types of natural environments (habitats) from a structural and functional perspective, as well as the selected species of flora and fauna of coastal areas and the methods and forms of nature conservation	The student names the types of ecosystems associated with the coast and characterizes their structural and functional aspects. The student presents methods and means of coastal ecosystems protection, including nature monitoring.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report
[BIOLL3_W05] The graduate knows the rules and describe the mechanisms of life at the population, biocenosis and ecosystem levels and the temporal and spatial determinants of biodiversity	The student describes the mechanisms of functioning of organisms in various conditions in coastal environment.	[SW4] test/exam - oral or written [SW1] oral statement/ conversation/discussion [SW2] presentation/project/paper/ report

Subject contents

Types of coastal ecosystems occurring in Poland and around the world (selected examples). Specificenvironmental conditions associated with the seashore and the adaptation of organisms to function in theseconditions. Characteristics of selected coastal ecosystems in terms of their genesis, functioning andsuccession. Zonation. Effects of soil salinity. Threats and protection of coastal ecosystems. Modern scientificresearch conducted in coastal ecosystems.

Prerequisites and co-requisites

None.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Final test	51.0%	80.0%
Presentation evaluation	51.0%	20.0%

Recommended reading

Basic literature	Matuszkiewicz W. 2014. Przewodnik do oznaczania zbiorowiskroślinnych Polski. PWN, Warszawa.Piotrowska H. 2002. Zbiorowiskapsammofilne na wydmach polskiego Brzegu Bałtyku. Acta Bot.Cassubica 3: 5-47.Piotrowska H. 2003. Zróżnicowanie i dynamikanadmorskich lasów i zarośli w Polsce. Bogucki Wyd. Nauk., Poznań-Gdańsk, 102 ss. + 47 tabel.
Supplementary literature	Adam P. 1990. Saltmarsh ecology. Cambridge University Press, 461ss.Barbier, E. B., Hacker, S. D., Kennedy, C., Koch, E. W., Stier, A. C.,Silliman, B. R. 2011. The value of estuarine and coastal ecosystemservices. Ecological Monographs, 81: 169193.Falińska K. 2004.Ekologia roślin. PWN, Warszawa.Lazarus M., Wszałek-Rożek K. 2016.Two rare halophyte species: Aster tripolium L. and Plantago maritima L.on the Baltic coast in Poland-their resources, distribution andimplications for conservation management. Biodiv. Res. Conserv. 41:51-60Piotrowska H. 1974. Nadmorskie zespoły solniskowe w Polsce iproblemy ich ochrony. Ochr. Przyr. 39: 7-63.Piotrowska H. (red.). 1997.Przyroda Słowińskiego Parku Narodowego. Bogucki Wyd. Nauk.,Poznań-Gdańsk, 320 ss.
eResources addresses	Adresy na platformie eNauczanie:

Example issues/ example questions/ tasks being completed

1. Coastal ecosystems protection areas in Poland and in Europe - examples2. Coastal protection structers - pros and cons of buliding and maintaining them

Work placement

Not applicable

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