University of Gdańsk

Subject card

Subject name and code	Marine Biodiversity - lecture, PG_00205273		
Field of study	Oceanography		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2027/2028
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group 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	2	Language of instruction	Polish
Semester of study	4	ECTS credits	2.0
Learning profile	academic	Assessment form	exam
Conducting unit	Department of Marine Ecology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Urszula Janas, prof. UG	
	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

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	18.0	50

Subject objectives

To familiarise students with biodiversity at different levels of organisation, its value for ecosystem and humans, threats and ways of protection

Learning outcomes

Course outcome	Subject outcome	Method of verification
[OCEANL3-W06] has an advanced understanding of the principles of managing the marine environment and its resources, as well as the consequences of disrupting the balance of marine ecosystems	He or she knows and understands the principles of management of living marine resources and the consequences of the threats to marine	[SW4] test/exam - oral or written
[OCEANL3-W04] has an advanced understanding of issues and research problems in oceanography, and recognizes their connection with other scientific disciplines	He or she has an advanced knowledge and understanding of marine biodiversity research issues and problems and how they relate to other disciplines.	[SW4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>Categories of biodiversity, methods of estimating the number of species, the use and non-use value of biodiversity and the effects of its reduction. Use of species in medicine, cosmetology and other areas of life.Functional diversity, keystone species, engineering speciesHabitat and biotope diversity; Hydrothermal vents, cold seeps, coral reefs, hypersaline deep sea basins, whale graveyardsMorphological, phenotypic and genotypic diversityBehavioural and physiological diversity and reproductive diversity Threats to marine biodiversity i.a.: habitat destruction and fragmentation, trade, overexploitation, invasive alien species, eutrophication, hypoxia, climate change, acydification, litter (microplastics), underwater noise, electromagnetic fields, artificial lightForms of biodiversity conservation: conservation and active protection, marine protected area systems, international agreements for the protection of marine biodiversity, bio-education</td></tr>
<tr><td>Prerequisites and co-requisites</td><td></td></tr>
<tr><td>Assessment methods and criteria</td><td>
<table>
<tr><th>Subject passing criteria</th><th>Passing threshold</th><th>Percentage of the final grade</th></tr>
<tr><td>Written exam with open and test questions</td><td>51.0%</td><td>100.0%</td></tr>
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<tr><td>Recommended reading</td><td>
<table>
<tr><td>Basic literature</td><td>Gaston K.J., Spicer J. I., 2008. Biodiversity: An Introduction. 6th Edition. Blackwell Publishing.

Barnes R.S.K., Calow P., Olive P.J.W., Golding D.W., Spicer J.I., 2007. The Invertebrate: a Synthesis. 4th Edition. Blackwell Publishing, 288 str.</td></tr>
<tr><td>Supplementary literature</td><td>Snoeijs-Leijonmalm P., Schubert H., Radziejewska T., (Red.), 2017, Biological oceanography of the Baltic Sea. Springer Science & Business Media, 682 str.</td></tr>
<tr><td>eResources addresses</td><td></td></tr>
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<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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