

**Subject card**

<b>Subject name and code</b>	Genetics of marine organisms, PG_00120310						
<b>Field of study</b>	Oceanography						
<b>Date of commencement of studies</b>	October 2024	<b>Academic year of realisation of subject</b>			2024/2025		
<b>Education level</b>	postgraduate studies	<b>Subject group</b>			Obligatory subject group in the field of study		
<b>Mode of study</b>	full-time studies	<b>Mode of delivery</b>			at the university		
<b>Year of study</b>	1	<b>Language of instruction</b>			Polish		
<b>Semester of study</b>	1	<b>ECTS credits</b>			2.0		
<b>Learning profile</b>	academic	<b>Assessment form</b>					
<b>Conducting unit</b>	Katedra Funkcjonowania Ekosystemów Morskich -> Faculty of Oceanography and Geography						
<b>Name and surname of lecturer (lecturers)</b>	<b>Subject supervisor</b>		dr Rafał Lasota				
	<b>Teachers</b>		dr Rafał Lasota dr Ludmiła Sromek				
<b>Lesson types</b>	<b>Lesson type</b>	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	<b>Number of study hours</b>	0.0	0.0	30.0	0.0	0.0	30
	E-learning hours included: 0.0						
<b>Learning activity and number of study hours</b>	<b>Learning activity</b>	Participation in didactic classes included in study plan		Participation in consultation hours		Self-study	SUM
	<b>Number of study hours</b>	30		1.0		19.0	50
<b>Subject objectives</b>	Insight into current research in the field of broadly understood genetics of marine organisms. Application of genetics in other fields of knowledge (including marine ecology, aquaculture, protection of biodiversity and living marine resources).						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[OCEANMU2-W02] knows and understands complex processes and phenomena occurring in the marine environment, with particular emphasis on the coastal zone, as well as complex relationships between living and non-living elements of the aquatic environment	Knows and understands to an in-depth degree the course of complex genetic processes and phenomena occurring in the marine environment and the coastal zone, as well as the intricate relationships between living and non-living components of the aquatic environment in the context of the genetics of marine organisms.	[SW2] presentation/project/paper/report [SW3] text preparation/written work
	[OCEANMU2-U08] is able to prepare a study of a given issue/problem in Polish and a selected foreign language in written form (short scientific text, documented research work) and orally (paper, presentation) and discuss with specialists on topics related to oceanographic issues, with particular emphasis on the studied specialty	Is able to prepare a written elaboration of a selected topic/problem in Polish and English (a short scientific text, documented research work) and discuss topics related to the genetics of marine organisms, with particular emphasis on the studied specialization.	[SU2] presentation/project/paper/report [SU3] text preparation/written work
	[OCEANMU2-U06] can use specialized computer software and advanced mathematical and statistical methods in data analysis and description of processes and phenomena occurring in the marine environment and coastal zone	Is able to use specialized computer software, bioinformatics tools, and mathematical and statistical methods in the analysis of genetic data and the description of phenomena and processes occurring at the molecular level in the marine environment and coastal zone.	[SU2] presentation/project/paper/report [SU5] implementation of a problem task
	[OCEANMU2-K04] is ready to critically evaluate his/her knowledge and received content in the field of natural sciences in particular in the field of the studied specialty, a in problematic situations, supports oneself with knowledge experts	Is ready to critically assess the knowledge acquired and the content received in the field of genetics of marine organisms, particularly within the scope of the studied specialization, and in problematic situations, relies on the knowledge of experts.	[SK2] presentation/project/paper/report [SK3] text preparation/written work
Subject contents	<p>Application of molecular methods in genetic and ecological research of marine organisms.</p> <p>Bioinformatics analyses, interpretation, elaboration, and discussion of genetic research results.</p> <p>Synthesis of published results concerning selected issues in the molecular ecology of marine organisms.</p>		
Prerequisites and co-requisites	Knowledge of the fundamentals of molecular genetics and population genetics. Knowledge of English at an intermediate level.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	completing the final paper, part 1	51.0%	50.0%
	completing the final paper, part 2	51.0%	50.0%
Recommended reading	Basic literature	Charon K. M., Świtoński M. Genetyka i genomika zwierząt, Wyd. PWN, Warszawa, 2021 Brown A.C. 2019. Genomy. Wyd. PWN, Warszawa. Kartavtsev Y. Molecular Evolution and Population Genetics for Marine Biologists. CRC Press, 2015 Krzanowska H., Łomnicki A. (red.). Zarys mechanizmów ewolucji. Wyd. PWN, Warszawa, 2002	
	Supplementary literature	Słomski R. (red.). Analiza DNA teoria i praktyka. Wyd. Uniwersytetu Przyrodniczego w Poznaniu, 2008	
	eResources addresses	Adresy na platformie eNauczanie:	
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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