University of Gdańsk

Subject card

Subject name and code	Aquaculture - fieldwork, PG_00192755		
Field of study	Marine Biotechnology		
Date of commencement of studies	October 2027	Academic year of realisation of subject	2027/2028
Education level	Master'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	English
Semester of study	1	ECTS credits	1.0
Learning profile	academic	Assessment form	credit
Conducting unit	Laboratory of Aquaculture -> Department of Marine Biology and Biotechnology -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	Karolina Pałucha	
	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	1.0	9.0	25

Subject objectives	The goal is to gain knowledge about modern aquaculture as an example of biotechnology, to learn about the main farmed species, new strategies for sustainable food production with low CO2 emissions, and modern methods of fish nutrition, health care, and welfare.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[MBMU2-KU03] Can use and critically analyze available scientific information; can prepare and present - orally or in writing - a paper covering detailed problems in the field of marine biotechnology on the basis of the scientific information or their own work, with the use of scientific language, including specialized terminology and conceptual apparatus; has the ability to conduct discussions	Students have knowledge and ability for critical analysis of available scienctific data and based on these is able to prepare oral presentation and written study related to issues connected with aquaculture using scientific language and terminology. Has ability to moderate scientific discussion	[SU2] presentation/project/paper/ report
[MBMU2-KU01] Can plan and conduct research in the laboratory and at sea, and to document procedures and results. Independently or under the supervision of an authorized staff member, carries out work using specialized equipment. Complies with occupational health and safety regulations.	Students have the ability to plan and carry out research in the laboratory, document the experiments and their results; can draw conclusions based on the observations made during the field trip to the aquaculture farm and results obtained during the laboratory activities.	[SU2] presentation/project/paper/ report
[MBMU2-KW02] Has an in-depth knowledge of the possibilities of biotechnological use of marine resources	Students got significant knowledge on food production within aquaculture and knows potential of fish, water invertebrates and plants to be used in this sector	[SW2] presentation/project/paper/ report
[MBMU2-KK02] Is ready to effectively plan and organize his individual and team work, especially in the laboratory and at sea; is ready to plan his individual career and act in an entrepreneurial manner	Students are ready to plan and organize efficiently individual and team work, especially in laboratory and aquaculture farm, is ready to plan individual professional carrer and work in a enterprising way.	[SK2] presentation/project/paper/ report

Subject contents

1. Visit to the fish farm - breeding of fish under control conditions,
2. Hot topics in world and local aquaculture panel discussion and presentations

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Preparation of a report	51.0%	100.0%

Recommended reading

Basic literature

1. Goryczko, K., Grudniewska , J. 2015. Chów i hodowla pstraga tęczowego. Wydawnictwo IRŚ Olsztyn.

2. Zakęś Z. Biotechnologia w akwakulturze. Wydawnictwo IRS. 2008

3. Demska-Zakęś K. Innowacyjne techniki oceny biologicznej i ochrony cennych gatunków ryb hodowlanych i raków. Wydawnictwo IRS. 2008.

	Supplementary literature	1. Zwierzchowski L (red). Biotechnologia zwierząt. Wyd. Naukowe PWN. 1997. 2. Pillay T.V.R and Kutty M.N. 2005. Aquaculture; Principles and practices (second Edition). Blackwell Publishing. https://www.agrifs.ir/sites/default/files/AQUACULTURE.pdf 3. Beaumont A.R. and Hoare K. 2003. Biotechnology and Genetics in Fisheries and Aquaculture. Blackwell Sciences. https://www.agrifs.ir/sites/default/files/Biotechnology_and_Genetics_in_Fisheries_and_Aquaculture_0.pdf 4. Overturf K. Molecular research in Aquaculture. Wiley. 2007. 5. Dunham R. Aquaculture and Fisheries Biotechnology. Genetic approach. CABI publishing. 2004. 6. John Liu. Aquaculture Genome Technologies 2007. 7. Scientific articles published in specialist scientific journals such as Aquaculture, Aquaculture Research, Aquaculture International, Scientific Reports, PloS One, etc.
	eResources addresses	
Example issues/ example questions/ tasks being completed	not applicable	
Work placement	Field exercises	

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