University of Gdańsk

Subject card

Subject name and code	Impact of Aquaculture on the Environment - seminar, PG_00201257		
Field of study	Aquaculture – Business And Technology		
Date of commencement of studies	October 2026	Academic year of realisation of subject	2028/2029
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study
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	2.0
Learning profile	practical	Assessment form	credit
Conducting unit	Laboratory of Biodiversity and Benthic Functioning -> 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

The purpose of the course is to familiarize the student with the topic of the impact of aquaculture on the environment. During the course, the student will gain knowledge of the need to develop aquaculture in a sustainable manner.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKWAL3-U07] can come to the right conclusions on the basis of available data	He or she is able to make correct conclusions on the basis of available data on the environmental impacts of aquaculture	[SU2] presentation/project/paper/ report
[AKWAL3-W12] knows and understands the role of aquaculture in the modern economy and its impact on the natural environment	He or she knows and understands the impact of aquaculture on the natural environment	[SW3] text preparation/written work
[AKWAL3-U12] can interact and work in a group, and assume different roles	He or she can interact and work in a group, taking on different roles while working on projects and case studies	[SU2] presentation/project/paper/ report
[AKWAL3-K06] is ready to think and act in an entrepreneurial manner in terms of actions taken, including social initiatives, cooperation for environmental sustainability and sustainable development	He or she is willing to think and act to preserve the ecological balance and sustainable development of aquaculture	[SK2] presentation/project/paper/ report

Subject contents	Sustainable development of aquacultures Threats to the natural environment and ecological balance, among others, eutrophication, oxygen deficiency, alien species, pharmaceuticals and other compounds used in aquaculture, diseases transmitted to natural populations, loss of land for other activities; Benefits of aquaculture development, among others, production of food and other products necessary for humans; Assessment of the impact of aquaculture on the aquatic environment; Biomonitoring of the environment in the vicinity of aquaculture; Environmental impact assessments of aquaculture projects, forecasting the impact of future aquaculture projects on the environment, using the DPSiR and Life Cycle Assessment (LCA) model and Nature Based Solutions, among others.
Prerequisites and co-requisites	

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written work	51.0%	30.0%
presentation 1 /project	51.0%	35.0%
presentation 2 /project	51.0%	35.0%

Recommended reading

Basic literature	Gray J., Elliott M., 2010, Ecology of Marine sediments from science to management, Oxford University Press James S. D. 2009, Aquaculture production and biodiversity conservation, BioScience 59 (1): 2738. Schultz-Zehden A, Matczak M. (eds.), 2012, Compendium An Assessment of Innovative and Sustainable Uses of Baltic Marine Resources, Instytut Morski, Gdańsk, 262 str.
Supplementary literature	Zimna J., Przedrzymirska J., Matczak M., Zaucha J., 2013, Mapa Drogowa rozwoju polskich obszarów nadmorskich opartego na czerpaniu pożytków z innowacyjnych form wykorzystania zasobów Bałtyku, Instytut Morski, Gdańsk, 68 str
eResources addresses	

Example issues/ example questions/ tasks being completed	
Work placement	Not applicable

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