University of Gdańsk

Subject card

Subject name and code	Aquaculture microbiology - lectures, PG_00075871		
Field of study	Aquaculture – Business And Technology		
Date of commencement of studies	October 2025	Academic year of realisation of subject	2026/2027
Education level	Bachelor's studies	Subject group	
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	2	Language of instruction	Polish
Semester of study	3	ECTS credits	2.0
Learning profile	practical	Assessment form	
Conducting unit			
Name and surname of lecturer (lecturers)	Subject supervisor	dr Anna Toruńska-Sitarz	
	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	5.0	15.0	50

Subject objectives

To learn about the different groups of aquatic microorganisms and the nature of their interactions with other organisms. To introduce students to the importance of the role of microorganisms in the aquaculture of higher organisms and how microorganisms can applied to improve aquaculture.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKWAL3_W03] knows and understands the conceptual categories and terminology related to the biological basis of aquatic organisms breeding, as well as concepts directly relevant to the practical applications of this knowledge	W_1 [K_W03] knows and understands the diversity of aquatic microorganisms and the conceptual categories and terminology relating to the biological basis of the culture of aquatic microbes, as well as concepts directly relevant to the practical applications of this knowledge.	[SW4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>1. Structure, diversity and ecological functions of aquatic microorganisms.

2. Mechanisms regulating the abundance, biomass and diversity of microorganisms.

3. Methods used in microbiological studies.

4. Microbiological processes and water quality in aquaculture.

5. Use of "beneficial microorganisms" in aquaculture (probiotics, feed, sensors etc.)

6. Pathogenic microorganisms in aquaculture.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>none</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>Group work (active learning)</td><td>51.0%</td><td>20.0%</td></tr>
<tr><td>Exam</td><td>51.0%</td><td>80.0%</td></tr>
</table></td></tr>
<tr><td>Recommended reading</td><td><table>
<tr><td>Basic literature</td><td>Mikrobiologia ogólna H.G. Schlegel; Mikrobiologia środowisk M.K. Błaszczyk; Aquaculture Microbiology and Biotechnology D. Montet, R.C. Ray; Scientific papers</td></tr>
<tr><td>Supplementary literature</td><td>Mikrobiologia wód G. Rheinheimer; Łowcy mikrobów P. de Kruif; Beneficial Microorganisms in Agriculture, Aquaculture and Other Areas M.T.Liong</td></tr>
<tr><td>eResources addresses</td><td>Adresy na platformie eNauczanie:</td></tr>
</table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td></td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
</table>

Document generated electronically. Does not require a seal or signature.