University of Gdańsk

Subject card

Subject name and code	Aquaculture Microbiology - lecture, PG_00201307		
Field of study	Aquaculture – Business And Technology		
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 Subject group related to practical vocational preparation
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	exam
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	2.0	18.0	50

Subject objectives

To learn about the various groups of aquatic microorganisms and the nature of their interactions with other organisms. To learn about the role of microorganisms occurring in aquaculture systems of higher organisms and the ways they can be used to improve aquaculture practices.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKWAL3_W03] has an advanced understanding of 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] The student knows and understands the diversity of aquatic microorganisms, as well as the conceptual categories and terminology related to the biological foundations of their cultivation, along with the concepts directly applicable to the practical use 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>Exam</td><td>51.0%</td><td>80.0%</td></tr>
<tr><td>Group work (active learning)</td><td>51.0%</td><td>20.0%</td></tr>
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<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></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>
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