University of Gdańsk

Subject card

Subject name and code	Diseases of Cultivated Invertebrates - lecture, PG_00201297		
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	4	ECTS credits	1.0
Learning profile	practical	Assessment form	credit
Conducting unit	Department of Marine Ecosystems Functioning -> Faculty of Oceanography and Geography -> Rector		
Name and surname of lecturer (lecturers)	Subject supervisor	dr hab. Katarzyna Smolarz, prof. UG	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	15.0	0.0	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 aim of the course is to familiarize students with the knowledge of diseases and pathological changes occurring in farmed invertebrates and the latest diagnostic methods used to identify them. Zoonotic diseases transmitted by farmed invertebrates.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[AKWAL3-U03] can competently obtain selected aquatic invertebrates for ongoing breeding and perform simple practical tasks related to their breeding under the guidance of the scientific supervisor	the student is able to skillfully obtain selected aquatic invertebrates for breeding based on the assessment of their health condition and performs simple diagnostics during breeding under the supervision of a scientific supervisor (program contents: 3-4)	[SU4] test/exam - oral or written
[AKWAL3_W04] has an advanced understanding of the principles of optimization of breeding methods for aquatic invertebrates, and has acquired theoretical and practical knowledge of the diagnostic methods used	the student knows and understands the principles of optimization of breeding methods and has acquired theoretical and practical knowledge of the applied diagnostic methods for diseases of farmed invertebrates (program content: 1-7)	[SW4] test/exam - oral or written
[AKWAL3-K05] student is ready to appreciate the practical application of acquired knowledge	the student is ready to appreciate the practical application of the acquired knowledge in the assessment of the health of farmed invertebrates and the diagnosis of diseases occurring in farms (program contents: 1-7)	[SK1] oral statement/conversation/ discussion [SK4] test/exam - oral or written

<table>
<tr><td>Subject contents</td><td>1. Characteristics of the condition called complete body health and various divergences from this condition, which result in damage of a body structure or function.

2. Definition of a disease and pathogen; stress as a pathogen.

3. Mechanism of the immune response in invertebrates. Techniques for enhancing the immune system in cultivated organisms.

4. Presentation of the currently identified diseases and pathological changes in cultivated invertebrates, and their consequences for aquaculture.

5. Evaluation of health and fitness of cultivated invertebrates using the latest diagnostic tools.

6. Epizootic, zoocenosis, toxic poisoning (shellfish poisoning).

7. Estimation of the usefulness of pathological changes as indicators of environmental pollution.

8. Health care of cultivated organisms in terms of quality and safety of end products.</td></tr>
<tr><td>Prerequisites and co-requisites</td><td>Basics of biology, ecology, biochemistry, physiology and genetics of aquatic invertebrates</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>final test</td><td>51.0%</td><td>100.0%</td></tr></table></td></tr>
<tr><td>Recommended reading</td><td><table><tr><td>Basic literature</td><td>A.1. Characteristics of the condition called complete body health and various divergences from this condition, which result in damage of a body structure or function.

A.2. Definition of a disease and pathogen; stress as a pathogen.

A.3. Mechanism of the immune response in invertebrates. Techniques for enhancing the immune system in cultivated organisms.

A.4. Presentation of the currently identified diseases and pathological changes in cultivated invertebrates, and their consequences for aquaculture.

A.5. Evaluation of health and fitness of cultivated invertebrates using the latest diagnostic tools.

A.6. Epizootic, zoocenosis, toxic poisoning (shellfish poisoning).

A.7. Estimation of the usefulness of pathological changes as indicators of environmental pollution.

A.8. Health care of cultivated organisms in terms of quality and safety of end products.</td></tr><tr><td>Supplementary literature</td><td>none</td></tr><tr><td>eResources addresses</td><td></td></tr></table></td></tr>
<tr><td>Example issues/ example questions/ tasks being completed</td><td>none</td></tr>
<tr><td>Work placement</td><td>Not applicable</td></tr>
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