

Subject card

Subject name and code	Diseases of cultivated invertebrates - lectures, PG_00075914						
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	4		ECTS credits		1.0		
Learning profile	practical		Assessment form		credit		
Conducting unit							
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Katarzyna Smolarz				
	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		4.0		10.0	29
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_W04] knows and understands 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-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-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		

Subject contents	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.		
Prerequisites and co-requisites	Basics of biology, ecology, biochemistry, physiology and genetics of aquatic invertebrates		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	final test	50.0%	100.0%
Recommended reading	Basic literature	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.	
	Supplementary literature	none	
	eResources addresses		
Example issues/ example questions/ tasks being completed	none		
Work placement	Not applicable		

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