

Subject card

Subject name and code	Fish Diseases and Welfare - laboratory classes, PG_00201290						
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		1.0		
Learning profile	practical		Assessment form		credit		
Conducting unit	Laboratory of Parasitology and General Zoology -> Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Leszek Rolbiecki				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	15.0	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		2.0		8.0	25
Subject objectives	This course is designed to familiarize students with the causes and effects of fish diseases of various etiologies; to familiarize with diagnostic techniques, prevention and therapy in fish aquaculture; to familiarize with fish parasitic diseases and their prevention and control.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[AKWAL3-U04] can select and use available sources of information, and understand the literature on aquaculture in a broad sense	Student can select and use available sources of information and understand the literature on fish health and welfare.	[SU1] oral statement/conversation/discussion [SU4] test/exam - oral or written
	[AKWAL3_W06] has an advanced understanding of techniques, research methods and tools used in aquaculture	Student knows and discusses techniques, research methods and tools used in fish disease diagnosis.	[SW1] oral statement/conversation/discussion
	[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	Student knows and understands conceptual categories and terminology related to diseases fish, as well as concepts with direct reference to practical applications this knowledge in fish farming.	[SW4] test/exam - oral or written [SW1] oral statement/conversation/discussion
	[AKWAL3-K04] is ready to identify and recognize dilemmas connected with the profession and understands the need to improve professional competence	Student is ready to identify and recognize dilemmas related to performing the profession of a fish farming in the future and understands the need to improve professional competences.	[SK1] oral statement/conversation/discussion [SK8] observation of student's independent or team work
[AKWAL3-U06] can apply basic techniques and technological processes related to the use of elements of the environment for practical purposes	The student is able to apply basic laboratory and analytical techniques related to fish health testing for practical purposes.	[SU6] demonstration of practical skills	
Subject contents	Examination of infected fish - environmental diseases, viral, bacterial and fungal diseases, diseases caused by parasites (protozoa, flukes, tapeworms, nematodes, acanthocephalans, crustaceans, molluscs, annelids). Sections, preparation and macroscopic and microscopic observation.		
Prerequisites and co-requisites	-		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	written test	51.0%	50.0%
	practical skills demonstration	51.0%	50.0%
Recommended reading	Basic literature	<ol style="list-style-type: none"> Antychowicz J., 2008. Choroby ryb śródlądowych. PWRiL, Warszawa. Bruno D.W. Noguera P.A., Poppe T.T. 2013. A colour atlas of salmonid diseases. Springer Dordrecht Heidelberg New York London. Jara Z., 1999. Chodyniecki A. Ichtiopatologia. Wydawnictwo Akademii Rolniczej we Wrocławiu, Wrocław. Klimpel S., Kuhn T., Münster J., Dörge D.D., Klapper R., Kochmann J., 2019. Parasites of marine fish and cephalopods. A practical guide. Springer Nature Switzerland, Switzerland. Noga E.J., Fish disease - diagnosis and treatment. A John Wiley & Sons, Inc., Publication, USA. Pritchard M.H., Kruze G.O.W., 1982. The collection and preservation of animal parasites. Lincoln, London, University of Nebraska, Technical Bulletin No. 1. Prost M., 1989. Choroby ryb. PWRiL, Warszawa. 	
	Supplementary literature	<ol style="list-style-type: none"> Rolbiecki L., 2002. Szybka metoda wykonywania semipermanentnych glicerożelatynowych preparatów z pasożytów [A rapid method for preparing semipermanent glycerol-jelly parasite mounts]. Wiadomości Parazytologiczne 48: 87-88. Rolbiecki L., 2007. Zastosowanie kwasu octowego i alkoholu benzylowego w preparatyce parazytologicznej wady i zalety [The application of acetic acid and benzyl alcohol in parasitological preparations advantages and disadvantages]. Wiadomości Parazytologiczne 53: 347-349. 	
	eResources addresses		
Example issues/ example questions/ tasks being completed	-		
Work placement	Not applicable		

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