

Subject card

Subject name and code	Basic Biochemistry and Genetics of Cultured Organisms - lecture, PG_00201312						
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 hab. Katarzyna Smolarz				
	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	The aim of the course is to familiarize students with the basics of biochemistry and genetics used in breeding aquatic organisms						
Learning outcomes	Course outcome		Subject outcome			Method of verification	
	[AKWAL3-U02] can make observations and perform simple physical / biological / chemical measurements that are typical in socio-economic activity based on natural sciences		the student is able to carry out observations and perform simple biochemical and genetic analyses, typical for fields of socio-economic activity based on natural sciences and necessary in breeding farms (program content: W1-W6).			[SU4] test/exam - oral or written	
	[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		the student knows and understands the conceptual categories and terminology regarding the biological basis of breeding aquatic organisms in the field of biochemistry and genetics, as well as concepts directly related to the practical applications of this knowledge (program content: W1-W6).			[SW4] test/exam - oral or written	
	[AKWAL3-K03] is ready to follow the ethical principles in biological research and adhere to the principles of intellectual honesty		the student is ready to comply with the principles of ethics in biological research and the principles of intellectual honesty (program content: W1-W6).			[SK1] oral statement/conversation/discussion	
	[AKWAL3-U07] can come to the right conclusions on the basis of available data		the student is able to make correct conclusions based on available biochemical and genetic data regarding breeding activities (program content: W1-W6).			[SU1] oral statement/conversation/discussion [SU4] test/exam - oral or written	

Subject contents	<p>W1. basic biochemical transformations, cell structure and functions</p> <p>W2. gene replication and expression (including the structure and functions of nucleic acids)</p> <p>W3. characterization of chromosomes as gene carriers</p> <p>W4. quantitative and qualitative features, heritability, variability</p> <p>W5. basics of population genetics</p> <p>W6. application of genetic methods in aquaculture</p>											
Prerequisites and co-requisites	Systematics and basics of biology of breeding organisms (Invertebrates).											
Assessment methods and criteria	<table border="1" data-bbox="448 618 1487 712"> <thead> <tr> <th data-bbox="448 618 798 651">Subject passing criteria</th> <th data-bbox="802 618 1142 651">Passing threshold</th> <th data-bbox="1147 618 1487 651">Percentage of the final grade</th> </tr> </thead> <tbody> <tr> <td data-bbox="448 658 798 712">Final exan with test and open questions</td> <td data-bbox="802 658 1142 712">51.0%</td> <td data-bbox="1147 658 1487 712">100.0%</td> </tr> </tbody> </table>			Subject passing criteria	Passing threshold	Percentage of the final grade	Final exan with test and open questions	51.0%	100.0%			
Subject passing criteria	Passing threshold	Percentage of the final grade										
Final exan with test and open questions	51.0%	100.0%										
Recommended reading	<table border="1" data-bbox="448 719 1487 1279"> <tbody> <tr> <td data-bbox="448 719 798 1216">Basic literature</td> <td colspan="2" data-bbox="802 719 1487 1216"> <p>Brown T., 2001, Genomy. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Charon K., Świtoński H., 2006, Genetyka zwierząt. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Gajewski W., 1987, Genetyka ogólna i molekularna. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Kłyszajko-Stefanowicz Leokadja, Ćwiczenia z biochemii, 2013, Wydawnictwo Naukowe PWN</p> <p>Węgleński Piotr, Genetyka molekularna, 2012, Wydawnictwo Naukowe PWN</p> </td> </tr> <tr> <td data-bbox="448 1223 798 1249">Supplementary literature</td> <td colspan="2" data-bbox="802 1223 1487 1249">none</td> </tr> <tr> <td data-bbox="448 1256 798 1279">eResources addresses</td> <td colspan="2" data-bbox="802 1256 1487 1279"></td> </tr> </tbody> </table>			Basic literature	<p>Brown T., 2001, Genomy. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Charon K., Świtoński H., 2006, Genetyka zwierząt. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Gajewski W., 1987, Genetyka ogólna i molekularna. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Kłyszajko-Stefanowicz Leokadja, Ćwiczenia z biochemii, 2013, Wydawnictwo Naukowe PWN</p> <p>Węgleński Piotr, Genetyka molekularna, 2012, Wydawnictwo Naukowe PWN</p>		Supplementary literature	none		eResources addresses		
Basic literature	<p>Brown T., 2001, Genomy. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Charon K., Świtoński H., 2006, Genetyka zwierząt. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Gajewski W., 1987, Genetyka ogólna i molekularna. Wydawnictwo Naukowe PWN, Warszawa.</p> <p>Kłyszajko-Stefanowicz Leokadja, Ćwiczenia z biochemii, 2013, Wydawnictwo Naukowe PWN</p> <p>Węgleński Piotr, Genetyka molekularna, 2012, Wydawnictwo Naukowe PWN</p>											
Supplementary literature	none											
eResources addresses												
Example issues/ example questions/ tasks being completed	none											
Work placement	Not applicable											

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