University of Gdańsk

Subject card

Subject name and code	Application of molecular diagnostics on the example of Gyrodactylidea, PG_00146041		
Field of study	Biology		
Date of commencement of studies	October 2024	Academic year of realisation of subject	2026/2027
Education level	undergraduate studies	Subject group	Optional subject group
Mode of study	full-time studies	Mode of delivery	at the university
Year of study	3	Language of instruction	Polish Polish
Semester of study	6	ECTS credits	1.0
Learning profile	academic	Assessment form	
Conducting unit	Pracownia Ewolucji Molekularnej i Bioinformatyki -> Katedra Genetyki Ewolucyjnej i Biosystematyki -> Faculty of Biology		
Name and surname of lecturer (lecturers)	Subject supervisor	prof. dr hab. Marek Ziętara	
	Teachers		

Lesson types

Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
Number of study hours	0.0	15.0	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	2.0	8.0	25

Subject objectives

The aim of the course is to familiarize students with the biology of representatives of the order Gyrodactylidea (Platyhelminthes, Monogenea) and molecular and bioinformatic techniques used in their diagnostics.

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_U03] The graduate, under the guidance of a mentor, is able to carry out simple tasks or research expertise typical of the biological sciences	The student is able to: Select the appropriate molecular marker to diagnose the given problem concerning the taxon in question. Obtain sequences of relevant molecular markers from the data bank.	[SU2] presentation/project/paper/ report
[BIOLL3_W06] The graduate will know the characteristics, systematics and understand the evolution of selected groups of organisms including molecular basis and basic concepts and mechanisms of evolution	The student knows: Diagnostic problems in the taxon in question. Evolution and phylogenetics of the taxon in question. The biology of the taxon in question. Problems of the epidemic caused by Gyrodactylus salaris.	[SW4] test/exam - oral or written
[BIOLL3_U04] The graduate will be able to apply statistical methods and computer algorithms and techniques to the description of phenomena and the analysis of biological data	The student is able to: Apply appropriate bioinformatics calculations to explain the given problem concerning the taxon in question.	[SU2] presentation/project/paper/ report

Subject contents	Biology of the order Gyrodactylidea (Platyhelminthes, Monopisthocotylea). Genetic diversity at the molecular level of representatives of the taxon in question. Application of bioinformatics methods to solve diagnostic problems of the taxon in question. Molecular evolution.
Prerequisites and co-requisites	additional requirements: • 1. The student is obliged to participate in classes, and in the event of absence, it must be excused in accordance with paragraph 12 of the UG Study Regulations. • 2. The condition for passing the exam is participation in at least 85% of classes. • 3. The student is obliged to fill in the gaps in knowledge and skills caused by the absence on his/her own in agreement with the lecturer.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
Average of partial grades	51.0%	40.0%
Written test	51.0%	60.0%

Recommended reading	
Basic literature	A. Literature required for the final credit of the course:A.1. used during classes The Biology of Gyrodactylid Monogeneans: The Russian-Doll Killers T.A. Bakke, J. Cable and P.D. Harris (2007) Advances in Parasitology vol. 64: 161- 376, DOI: 10.1016/S0065-308X(06)64003-7A. 2. studied by the student on his or her own Scientific publications on the subject
Supplementary literature	Scientific publications on the subject self-selected by the student.
eResources addresses	Adresy na platformie eNauczanie:
Example issues/ example questions/ tasks being completed	No applicable
Work placement	Not applicable

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