University of Gdańsk

Subject card

Subject name and code	Zoology of invertebrates, PG_00196812						
Field of study	Biology						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Subject group related to scientific research in the field of study			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	1		ECTS credits	3.0			
Learning profile	academic		Assessment form	exam			
Conducting unit	Laboratory of Evolutionary Entomology and Museum of Amber Inclusions -> Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr hab. Jacek Szwedo				
	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		4.0	41.0	75	
Subject objectives	1 To review the major types of invertebrate animals and Protista (Protozoa). 2. To understand the main mechanisms and trends in the evolution of the animals discussed. 3. To be able to recognise the main types of animals studied.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[BIOLL3_U07] The graduate is able to independently search for and use available sources of biological information, including electronic sources	- independently finds and uses available sources of biological information, including electronic sources	[SU4] test/exam - oral or written
[BIOLL3_W06] The graduate will know at an advanced level the characteristics, systematics and understand the evolution of selected groups of organisms including molecular basis and basic concepts and mechanisms of evolution	- presents the characteristics, systematics and evolution of selected groups of invertebrates	[SW4] test/exam - oral or written
[BIOLL3_W03] The graduate knows and uderstands at an advanced level the the structure and functional relationships at the cellular, tissue, organ and organismal levels	- presents the structure of different types of invertebrates, taking into account functional relationships at the cellular (Protista), tissue, organ and organismal	[SW4] test/exam - oral or written
[BIOLL3_U08] The graduate is able to learn independently, in a focused manner	- the individual in question is able to learn independently by preparing the issues that have been identified.	[SU4] test/exam - oral or written
[BIOLL3_U06] The graduate can read with comprehension scientific biological texts in Polish and simple texts in English	- independently finds and uses available sources of biological information in Polish and English, including electronic sources	[SU4] test/exam - oral or written
[BIOLL3_K07] The graduate is prepared to apply the principles of bioethics consciously	- consciously apply the principles of bioethics	[SK1] oral statement/conversation/ discussion

Subject contents

The role and tasks of systematics. Principles of modern zoological nomenclature. Basics of phenetic, cladistic and evolutionary systematics. Phylogeny, taxonomy, morphology, anatomy, bionomy and economic importance of selected protozoa and invertebrates belonging to all types (after echinoderms). Fossil record and evolutionary changes of invertebrates.

Prerequisites and co-requisites

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
written test	51.0%	100.0%

Recommended reading

Basic literature	• Błaszak C. (red.) 2009, 2011, 2015. Zoologia, t. 1-3. PWN, Warszawa. • Czapik A. 1992. Podstawy protozoologii. Wyd. 2. PWN, Warszawa. • Grabda E. (red.) 1989. Zoologia bezkręgowce, t. 1. PWN, Warszawa. • Moraczewski J., Riedel W., Sołtyńska M., Umiński T. 1984. Ćwiczenia z zoologii bezkręgowców. PWN Warszawa
Supplementary literature	Brusca R.C., Moore W., Shuster S.M. 2016. Invertebrates. 3rd Edition. Sinauer Associates Inc. Publishers, Sunderland, MA. Dogiel W.A. 1986. Zoologia bezkręgowców. PWRiL Warszawa. Dzik J. 2015. Zoologia. Różnorodność i pokrewieństwa zwierząt. WUW, Warszawa. Gębicki C., Szwedo J. 2000. Owady Polski. Klucz i atlas. Kubajak, Krzeszowice. Giribet G., Edgecombe G.D. 2020. The Invertebrate Tree of Life. Princeton University Press, Princeton, NJ. Grabda E. (red.) 1989. Zoologia bezkręgowce, t. 2-5, PWN, Warszawa. Jura C. 2007. Bezkręgowce. Podstawy morfologii funkcjonalnej, systematyki i filogenezy. PWN, Warszawa. Moore J. 2009. Wprowadzenie do zoologii bezkręgowców. WUW, Warszawa. Urbanek A. 2007. Jedno istnieje tylko zwierzę Myśli przewodnie biologii porównawczej. Muzeum i Instytut Zoologii PAN, Warszawa
eResources addresses	

Example issues/ example questions/ tasks being completed

Work placement

Not applicable

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