

Subject card

Subject name and code	Invertebrate taxonomy, PG_00048436						
Field of study	Taksonomia zwierząt bezkręgowych (Ćw. laboratoryjne)						
Date of commencement of studies	October 2023	Academic year of realisation of subject	2025/2026				
Education level	Bachelor's studies	Subject group	Obligatory subject group in the field of study Optional subject group 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	3	Language of instruction	Polish				
Semester of study	5	ECTS credits	2.0				
Learning profile	academic	Assessment form	credit				
Conducting unit	Katedra Zoologii Bezkręgowców i Parazytologii -> Faculty of Biology -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor	dr Marta Zakrzewska					
	Teachers	dr Marta Zakrzewska dr Katarzyna Faleńczyk-Koziróg					
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	0.0	30.0	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	0.0	0.0	30		
Subject objectives	A working knowledge of the basic types of invertebrates and their relationships to the environment. Familiarisation with the Code of Zoological Nomenclature. The ability to obtain and prepare material for taxonomic studies. The ability to use and independently compile zoological keys.						

Learning outcomes	Course outcome	Subject outcome	Method of verification
	[BIOLL3_K02] the graduate is ready to critically self-assess his/her own competence and to update knowledge and improve skills	The student is aware of the necessity for honesty and integrity in academic and professional work.	[SK1] wypowiedź ustna/rozmowa/dyskusja [SK2] prezentacja/projekt/referat/raport [SK8] obserwacja samodzielnej lub zespołowej pracy studenta
	[BIOLL3_K01] the graduate is ready to evaluate his/her own knowledge and understands the need for continuous learning and development and is open to new ideas	The student is aware of the limitations of their own knowledge and is willing to engage in continuous learning and development. They are open to new ideas, such as a novel approach to invertebrate systematics.	[SK1] wypowiedź ustna/rozmowa/dyskusja [SK8] obserwacja samodzielnej lub zespołowej pracy studenta
	[BIOLL3_U03] the graduate is able to carry out simple tasks or research expertise typical of the biological sciences under the guidance of a supervisor	The student, under the guidance of the instructor, performs simple tasks, such as making microscopic preparations useful in taxonomy and creating keys for species determination.	[SU5] realizacja zadania problemowego [SU6] demonstracja umiejętności praktycznych [SU8] obserwacja samodzielnej lub zespołowej pracy studenta
	[BIOLL3_W06] the graduate has an advanced knowledge of the characteristics, systematics and evolution of selected groups of organisms including molecular basis and understands the basic concepts and mechanisms of evolution	The student provides an overview of the various types of natural environments and describes selected groups of invertebrates, including those found in coastal areas. Additionally, the student presents methods and forms of their protection.	[SW4] test/egzamin - ustny lub pisemny
[BIOLL3_W05] the graduate knows the rules and describes the mechanisms of life at the population, biocenosis and ecosystem levels and the temporal and spatial determinants of biodiversity	The student is able to identify the characteristics of selected invertebrate taxa and relate them to their habitat.	[SW4] test/egzamin - ustny lub pisemny [SW2] prezentacja/projekt/referat/raport	
Subject contents	<p>The role and tasks of systematics. The principles of modern zoological nomenclature. An introduction to the fundamentals of phenetic, cladistic and evolutionary systematics. A review of selected groups of invertebrates, including an examination of their characteristics and systematic position, as well as the relationship between these groups and their habitats. The methods of collection, preparation and identification of material for taxonomic studies.</p>		
Prerequisites and co-requisites	An understanding of the basic taxonomy and systematics of invertebrate animals and a familiarity with the fundamentals of invertebrate zoology are required.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	attendance	85.0%	0.0%
	presentation/project	51.0%	33.34%
	test II	51.0%	33.33%
	test I	51.0%	33.33%
Recommended reading	<p>Basic literature</p> <p>1. Literature used during the course: Boroń A., Szlachciak J. 2013. Różnorodność i taksonomia zwierząt. Tom 1. Charakterystyka i systematyka zwierząt. Uniwersytet Warmińsko-Mazurski, Olsztyn. Boroń A., Szlachciak J. 2013. Różnorodność i taksonomia zwierząt. Tom 2. Przewodnik terenowy do rozpoznawania wybranych krajowych taksonów zwierząt. Uniwersytet Warmińsko-Mazurski, Olsztyn. Winston, J. E. 1999. Describing species: practical taxonomic procedure for biologists. Columbia University Press, New York. pp. 518.</p> <p>2. Literature studied independently by the student: Błaszak Cz. [red.] 2009. Zoologia. t.1. Bezkręgowce. PWN, Warszawa. Błaszak Cz. [red.] 2011. Zoologia t.2. cz.1. Stawonogi. Stawonogi. PWN, Warszawa. Błaszak Cz. [red.] 2012. Zoologia t.2. cz.2. Stawonogi. Stawonogi. PWN, Warszawa. Błaszak Cz. [red.] 2015. Zoologia t.3. cz. 1. Szkarłupnie - płazy. PWN, Warszawa.</p>		

	Supplementary literature	<p>Falniowski A. 2007. Techniki zbioru, utrwalania i konserwacji zwierząt. WUJW, Warszawa.</p> <p>Giłka W., Zakrzewska M. 2013. A contribution to the systematics of Neotropical Tanytarsus van der Wulp: first descriptions from Ecuador (Diptera: Chironomidae: Tanytarsini). Zootaxa 3619: 453-459.</p> <p>Głowaciński Z. [red.]. 2007. Polska czerwona księga zwierząt. Kręgowce. PWRiL, Warszawa.</p> <p>Jura C. 2005. Bezkręgowce: podstawy morfologii funkcjonalnej, systematyki i filogenezy. Wydawnictwo Naukowe PWN.</p> <p>Kozina P., Izdebska J.N., Kowalczyk R. 2021. The first description of the nymphal stages of Hoplopleura longula (Psocodea: Anoplura: Hoplopleuridae) from the harvest mouse Micromys minutus (Rodentia: Muridae). Biodiversity Data Journal 9: e63747.</p> <p>Mayr E. 1974. Podstawy systematyki zwierząt. PWN, Warszawa.</p> <p>Moraczewski J., Riedel W., Sołyńska M., Umiński T. 1984. Ćwiczenia z zoologii bezkręgowców. PWN, Warszawa.</p>
	eResources addresses	
Example issues/ example questions/ tasks being completed		
Work placement	Not applicable	

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