

Subject card

Subject name and code	Invertebrate animals, PG_00207401						
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	2		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						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	30.0	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		3.0		17.0	50
Subject objectives	1. Knowledge of the faunal diversity of invertebrate animals of the region. 2. Knowledge of the characteristics of invertebrate animals in order to recognise taxa and the names of species. 3. The acquisition of the ability to work with an invertebrate animal species identification key. 4. The capacity to select and apply appropriate methods for quantitative assessment of organisms in the field and to process the collected material.						
Learning outcomes	Course outcome		Subject outcome		Method of verification		
	[BIOLL3_W06] knows the types of natural habitats, selected species of flora and fauna (with particular emphasis on coastal environments) as well as methods of nature conservation and the principles of sustainable development						
	[BIOLL3_U09] is able to learn independently and plan her/his own development in an organized and controlled manner						
	[BIOLL3_K01] is ready to critically evaluate her/his biological knowledge and continuously update and develop it, taking into account scientific advances and the needs of practice						

Subject contents	Observation of invertebrate animals, knowledge of techniques for collecting, preserving and preparing material. Practical identification of invertebrate animal species in the field on the basis of their characteristics. Construction and use of a key to identify invertebrate animals. Learning about selected elements of the biology of observed species at different stages of the life cycle. The diversity of animals in selected ecosystems of Pomerania (forest, meadow, river, lake, dune, beach and the Baltic littoral) including protected species, indicator species, rare species and species of economic importance.		
Prerequisites and co-requisites	Basic knowledge of invertebrate zoology and systematics.		
Assessment methods and criteria	Subject passing criteria	Passing threshold	Percentage of the final grade
	laboratory assessment	51.0%	15.0%
	field reports	51.0%	85.0%
	attendance	100.0%	0.0%
Recommended reading	Basic literature	Literature used during the course: 1. Kołodziejczyk A., Koperski P. 2000. Klucz do oznaczania makrofauny bezkręgowej występującej w wodach śródlądowych Polski. Narodowa Fundacja Ochrony Środowiska, Warszawa. 2. Krzysztofiak A., Krzysztofiak L., Pawlikowski T. 2004. Trzmięle Polski - przewodnik terenowy. Stowarzyszenie Człowiek i Przyroda, Suwałki. pp. 48. 3. Pławilszczikow N. 1972. Klucz do oznaczania owadów. PWRiL, Warszawa. 4. Urbański J. 1951. Poznaj krajowe ślimaki i małże. Ilustrowany klucz do oznaczania 100 gatunków pospolitych ślimaków i małżów krajowych. PZWS, Warszawa. 5. seria Klucze do oznaczania owadów Polski Polskiego Towarzystwa Entomologicznego. Literature studied independently by the student: 1. Bogdanowicz W., Chudzicka E., Pilipiuk I., Skibińska E. [red.] 2004, 2007, 2008. Fauna Polski charakterystyka i wykaz gatunków. T I-III. Muzeum i Instytut Zoologii PAN, Warszawa. 2. Głowaciński Z., Nowacki J. [red.] 2005. Polska Czerwona Księga Zwierząt. Bezkręgowce. PAN, Kraków. 3. Zalewska A., Komosiński K., Krupa R., Kołodziej P., Szydłowska J. 2013. Metody wykonywania waloryzacji przyrodniczych. Podręcznik metodyczny i przewodnik do zajęć terenowych. Uniwersytet Warmińsko-Mazurski w Olsztynie, Olsztyn.	
	Supplementary literature	1. Bellmann H. 2009. Przewodnik entomologa. Szarańczaki. Multico Oficyna Wydawnicza, Warszawa. pp. 344. 2. Bellmann H. 2010. Przewodnik entomologa. Ważki. Multico Oficyna Wydawnicza, Warszawa. pp. 280. 3. Bellmann H. 2011. Przewodnik entomologa. Błonkówki. Multico Oficyna Wydawnicza, Warszawa. pp. 344. 4. Boroń A., Szlachciak J. 2013. Różnorodność i taksonomia zwierząt Tom 2. Przewodnik terenowy do rozpoznawania wybranych krajowych taksonów zwierząt. Uniwersytet Warmińsko-Mazurski w Olsztynie, Olsztyn. 5. Rybak J. I. 2001. Przewodnik do rozpoznawania niektórych bezkręgowych zwierząt słodkowodnych, PWN, Warszawa. 6. Senn P. 2015. Motyle Dienne Gdyni. Atlas rozmieszczenia. Studio FM, Gdynia. pp. 205. 7. Wiktor A. 2004. Ślimaki lądowe Polski. Olsztyn: Mantis. pp. 302.	
	eResources addresses		
Example issues/ example questions/ tasks being completed			
Work placement	Not applicable		

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