

(Table 5.2) Course unit description

Study program: Biology				
Type and level of studies: Undergraduate academy study – I level of studies				
Course unit: Invertebrate Zoology 2				
Teacher in charge: Filip Vukajlović, PhD				
Language of instruction: English				
ECTS: 8				
Prerequisites: Passed the exam in Invertebrate Zoology 1				
Semester: Summer semester				
Course unit objective Continuation of introducing students to the morphological and anatomical structure of various groups of invertebrates, their taxonomic diversity, reproduction, life cycles, distribution, and significance in the living world. Understanding the importance of structural organization and functional adaptations of invertebrates.				
Learning outcomes of Course unit Students have acquired fundamental knowledge of the morphology and anatomy of invertebrates, which enables them to understand the importance of adaptive features in invertebrate adaptation to their environment, as well as the roles invertebrates play in ecosystems and their interactions with other ecosystem components. They have learned to recognize diagnostic characteristics that allow them to identify major taxonomic groups. Students have also become familiar with the significance of invertebrates to humans. Through practical work, they have mastered the basics of laboratory techniques and have been trained for both independent and teamwork. The acquired knowledge will facilitate a better understanding of the material covered in advanced zoology courses.				
Course unit contents <i>Theoretical classes:</i> Body organization and organ systems of selected groups of invertebrates: Protostomia – Ecdysozoa (Kinorhyncha, Loricifera, Nematoda, Nematomorpha, Onychophora, Priapulida, Tardigrada, Arthropoda) and Deuterostomia (Echinodermata). Types of reproduction and developmental cycles. Distribution, classification, and phylogeny. The significance of selected groups of invertebrates in nature and for humans. Use of diagnostic characteristics in classification. <i>Practical classes:</i> Practical classes thematically follow the theoretical classes. They include familiarization with the morphological and anatomical structures of Nematoda, Tardigrada, Arthropoda, and Echinodermata through microscopy of permanent and fresh preparations, dissections, and identification of selected invertebrate groups using their diagnostic features.				
Literature Hickman C., Keen S., Eisenhour, D., Larson A., l'Anson, H. Integrated Principles of Zoology. 18 th Edition. McGraw-Hill Education, 2019. Nielsen C. Animal Evolution. Interrelationships of the living phyla. Third Edition. Oxford University Press. 2012. Mitrovski Bogdanović A., Vukajlović F. Invertebrate Zoology lab practicum 2, unauthorized script, Kragujevac, 2025				
Number of active teaching hours				Other classes: 0
Lectures: 45	Practice: 45	Other forms of classes: 0	Independent work: 0	
Teaching methods Power point presentations, video clips, seminars, consultations, laboratory and field work.				
Examination methods (maximum 100 points)				
Exam prerequisites	No. of points	Final exam	No. of points	
Activities at lectures	5	Oral examination	30	
Activities in practical classes	5			
Theoretical classes tests	15+15			
Practical classes tests	10+10			

Insect collection	10		
Grading system			
Grade	No. of points	Description	
10	>= 91	Excellent	
9	81-90	Exceptionally good	
8	71-80	Very good	
7	61-70	Good	
6	51-60	Passing	
5	<=50	Failing	