

(Table 5.2) Course unit description

Study program: Ecology				
Type and level of studies: Master academy study – II level of studies				
Course unit: Insect ecology				
Teacher in charge: Filip Vukajlović, PhD				
Language of instruction: English				
ECTS: 5				
Prerequisites: /				
Semester: Summer semester				
Course unit objective Introducing students to basic and practical knowledge in the field of insect ecology; mastering the knowledge of the effects of ecological factors on the distribution, abundance, and life history traits of insects, on their ability to survive and reproduce; understanding the complexity of intra- and interspecific relationships, as well as the role of insects in various ecosystems; developing professionals for positions that require advanced and practical knowledge, especially regarding insect communities and their roles in the ecosystem and nature; mastering techniques for field and practical work in insect ecology; developing the ability to work independently and in teams and to organize activities.				
Learning outcomes of Course unit After completing the course and passing the exam, students will have mastered the fundamental knowledge and methods for conducting research and practical skills in insect ecology. The knowledge they acquire will enable them to analyze insect adaptations to different environmental conditions, especially insect communities. A professional is formed who acquired knowledge and skills in the field of insect ecology in the domains of environmental protection, biological control, and monitoring of ecological groups and insect populations in protected areas and ecosystems.				
Course unit contents <i>Theoretical classes: Introduction to insect ecology. The impact of ecological factors on insect abundance, metabolism, growth, and development. Plant-insect interactions. Morphological and environmental biodiversity of insects. Food chains and classification of insects into trophic levels. The role of natural enemies (predators, parasites, parasitoids, and pathogens) on the population dynamics of insects. Insect defense mechanisms. Chemical protection. Evolutionary ecology of insects. Physiological ecology – the basis for the success of insects in various ecosystems. Biological and chemical control. Characteristics and dynamics of insect populations. Structure, dynamics, and functions of insect communities. Ecosystem ecology of insects. Ecological management of harmful insect species. Insect ecology and climate change. Monitoring of selected insect groups and their populations.</i> <i>Practical classes: Ecology of a selected taxon. Introduction to micro- and macro- habitats of insects. Analyzing the adaptive characteristics of insects. Bioindicator properties of insects.</i>				
Literature Price P. W., Denno R. F., Eubanks M. D., Finke D. L., Kaplan I. Insect ecology: behavior, populations and communities. Cambridge University Press, 2011. Speight M. R., Hunter M. D., Watt A. D. Ecology of insects. A John Wiley & Sons, Ltd., 2008.				
Number of active teaching hours				
Lectures: 30	Practice: 30	Other forms of classes: 0	Independent work: 0	Other classes: 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
Practical classes	30	Written examination	30
Tests	20	Oral examination	
Project	20		
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	