

(Table 5.2) Course unit description

Study program: Biology				
Type and level of studies: Master academy study – II level of studies				
Course unit: Applied Entomology				
Teacher in charge: Filip Vukajlović, PhD				
Language of instruction: English				
ECTS: 5				
Prerequisites: /				
Semester: Summer semester				
Course unit objective Acquiring knowledge about the diversity, ecology, and life cycles of harmful and beneficial insects and mites, and the possibilities of using and applying insects in biotechnology, the food industry, agriculture, forestry, fisheries, environmental protection, and more.				
Learning outcomes of Course unit The student is trained to apply the acquired theoretical and practical knowledge about harmful and beneficial insects, their use in biotechnology, and the food industry, and agriculture; mastering basic skills, methods, and techniques in the field of applied entomology.				
Course unit contents <i>Theoretical classes: Beneficial and harmful insects in agriculture. Stored product pests. The use of insects in food and (bio)technology. Harmful insects in fruit growing, viticulture, crop production, and vegetable growing. Pollinating insects. Bee biology and beekeeping. Parasitoid and predatory insects. Biological control of insects. Forest entomology. Importance and application of soil insects. Aquatic insects as bioindicators and fish bait. Mites and ticks in biological control and medicine. Insect rearing. Practical classes: Identification, monitoring, and rearing of stored product pests. Obtaining food and technological products from Tenebrio molitor. Identification and monitoring of harmful insects in crop production, vegetable growing, fruit growing, and viticulture. Identification and diversity of bees and hoverflies. Bee rearing and beekeeping equipment. Handling honeybees in hives. Construction of bumblebee hives and tubes for solitary bees. Identification and rearing of insects for biological control.</i>				
Literature Van Emden H. Handbook of Agricultural Entomology. Wiley-Blackwell, 2013. Gennard D. Forensic Entomology. Wiley-Blackwell, 2012. Ciesla, W.M. 2011. Forest Entomology: A global perspective. Wiley-Blackwell, 2011.				
Number of active teaching hours				Other classes: 0
Lectures: 30	Practice: 30	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	
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