

**Biotechnical Faculty / PLANT PRODUCTION / ENTOMOLOGY**

<b>Course:</b>	ENTOMOLOGY			
<b>Course ID</b>	<b>Course status</b>	<b>Semester</b>	<b>ECTS credits</b>	<b>Lessons</b> (Lessons+Exercises+Laboratory)
4805	Mandatory	5	6	4+0+1
<b>Programs</b>	PLANT PRODUCTION			
<b>Prerequisites</b>	NO			
<b>Aims</b>	Program of this course offers wide basis for protection of cultivated plants and stored products against most important pests according principles of integrated pest management			
<b>Learning outcomes</b>	After passing the course, the student will be able to: describe basic morphology features of insects ; make difference of types of plant damages caused by insect feeding ; to determine insect development stages; to describe of life cycle of insects; to recognize the most important pest species according type of damage and morphology . to recognize damages caused by other pest species ; to advice appropriate control measures according principles of integrated pest management.			
<b>Lecturer / Teaching assistant</b>	Prof. Dr. Snježana Hrnčić – teacher, Prof. Dr. Sanja Radonjić – assistant			
<b>Methodology</b>	Lectures, Exercises, Individual work, Consultations, Colloquiums. Final exam			
<b>Plan and program of work</b>				
Preparing week	Preparation and registration of the semester			
I week lectures	Introduction. Insect morphology: head, antennae, mouth parts, thorax, legs and wings.			
I week exercises	Laboratory exercises: Sistematic place of species which are segment of this course (insect body parts			
II week lectures	Insect morphology: abdomen, integument. Anatomy and physiology: glands, muscles, alimentary canal, gaseous exchange-tracheal system, circulatory and nervous system			
II week exercises	Laboratory exercises: mouth parts.			
III week lectures	Sensory organs. Reproductive system. Reproduction. Insect development.			
III week exercises	Laboratory exercises: Antennae. Thorax, Wings. Legs.			
IV week lectures	Ecology. Principles and methods of regulation of population abundance			
IV week exercises	Laboratory exercises: Integument. Anatomy			
V week lectures	Insect clasification. Orthoptera. Dermaptera			
V week exercises	Laboratory exercises: Vision. Insect reproductive system. Insect Metamorphosis			
VI week lectures	Isoptera, Blattodea, Thysanoptera			
VI week exercises	Laboratory exercises: Types of larvae.Types of pupae			
VII week lectures	Hemiptera: Heteroptera. Auchenorrhyncha			
VII week exercises	Laboratory exercises: Types of plant damages caused by insect feeding			
VIII week lectures	Hemiptera: Sternorrhyncha			
VIII week exercises	Laboratory exercises: Forecasting for the most important insect pests			
IX week lectures	Hymenoptera. Colloquiums I			
IX week exercises	Laboratory exercises: Conthrol metods against pests.			
X week lectures	Coleoptera. Correctional colloquium			
X week exercises	Field exercises.			
XI week lectures	Coleoptera.			
XI week exercises	Laboratory exercises: Samples processing.			
XII week lectures	Lepidoptera.			
XII week exercises	Test.			
XIII week lectures	Lepidoptera. Diptera.			
XIII week exercises	Field exercises.			
XIV week lectures	Other pests: mites, snails. Colloquium II.			

XIV week exercises	Field exercises.					
XV week lectures	Other pests: nematodes, birds, mammals. Correctional colloquium II.					
XV week exercises	Laboratory exercises: Samples processing					
<b>Student workload</b>						
<b>Per week</b>			<b>Per semester</b>			
<b>6 credits x 40/30=8 hours and 0 minuts</b> 4 sat(a) theoretical classes 1 sat(a) practical classes 0 excercises <b>3 hour(s) i 0 minuts</b> of independent work, including consultations			Classes and final exam: <b>8 hour(s) i 0 minuts x 16 =128 hour(s) i 0 minuts</b> Necessary preparation before the beginning of the semester (administration, registration, certification): <b>8 hour(s) i 0 minuts x 2 =16 hour(s) i 0 minuts</b> Total workload for the subject: <b>6 x 30=180 hour(s)</b> Additional work for exam preparation in the preparing exam period, including taking the remedial exam from 0 to 30 hours (remaining time from the first two items to the total load for the item) <b>36 hour(s) i 0 minuts</b> Workload structure: <b>128 hour(s) i 0 minuts (courses), 16 hour(s) i 0 minuts (preparation), 36 hour(s) i 0 minuts (additional work)</b>			
<b>Student obligations</b>			presence to lectures and exercises, presence and interactive work during laboratory and field exercises, to take test, colloquiums and final exam			
<b>Consultations</b>			On Mondays from 12 a.m to 1 p.m.			
<b>Literature</b>			1. Dimić, N.; Hrnčić, Snježana; Dautbašić, M. (2013): Opšta entomolgija, Šumarski fakultet Sarajevo, 2. Tanasijević, N.; Simova-Tošić, D. (1987): Opšta entomologija, Naučna knjiga Beograd; For special part students will be provided with printed material.			
<b>Examination methods</b>			Activity on lecturers and exercises 5 points Test 5 points (oral) Two colloquiums, 25 points each (total 50 points) Final exam 40 points.			
<b>Special remarks</b>						
<b>Comment</b>						
<b>Grade:</b>	F	E	D	C	B	A
<b>Number of points</b>	less than 50 points	greater than or equal to 50 points and less than 60 points	greater than or equal to 60 points and less than 70 points	greater than or equal to 70 points and less than 80 points	greater than or equal to 80 points and less than 90 points	greater than or equal to 90 points