## ECTS catalog with learning outcomes University of Montenegro

## Biotechnical Faculty / MEDITERRANEAN FRUIT GROWING / PHYTOPHARMACY

Course:	PHYTOPHARMACY							
Course ID	Course status	Semester	ECTS credits	Lessons (Lessons+Exer cises+Laboratory)				
4807	Mandatory	5	6	3+1+1				
Programs	MEDITERRANEAN FRUIT GROWING							
Prerequisites	Νο							
Aims	To introduce students to the basic concept of pesticides, as well as issues related to their application, the movement in the environment and the pesticide regulation.							
Learning outcomes	After passing this exam, students will be able to: - Define the basic concepts in the field of phytopharmacy such as the rate of application, pesticide concentration, pre-harvest intervals and MRL, - Defines the basic properties and mode of action of different plant protection products (zoocides, fungicides, bactericides and herbicides) - Recommend the appropriate active ingredient or plant protection product for control of plant pathogens, pests or weeds, - Determine the most appropriate application techniques of pesticides, - Implement safety measures in handling pesticides							
Lecturer / Teaching assistant	Tatjana Perović, PhD, Assistant professor							
Methodology	Lectures, Exercises, Individual work, Consultations, Colloquiums, Final exam							
Plan and program of work								
Preparing week	Preparation and registration of the semester							
I week lectures	Introduction. Pesticide uses							
I week exercises	Chemical structure and biological activity							
II week lectures	Pesticide Classification. Nomenclature of pesticides							
II week exercises	Determination of the systemic effect of insecticides on aphids							
III week lectures	Physical and chemical properties of pesticides							
III week exercises	Calculating results							
IV week lectures	Pesticide formulations							
IV week exercises	Solid formulations							
V week lectures	Mode of Action							
V week exercises	Liquid formulations. Specialist formulations							
VI week lectures	Regulations in production, transport and use of pesticides							
VI week exercises	The mixing of pesticides							
VII week lectures	Toxicology of pesticides							
VII week exercises	Pesticide pack and labels							
VIII week lectures	Colloquium I							
VIII week exercises	Storage and transport of pesticides							
IX week lectures	The consequences of pesticide application. Pre-harvest intervals and MRL							
IX week exercises	Protective equipment for work with pesticides.							
X week lectures	Correctional Colloquium I. Fungicides in subtropical fruit growing							
X week exercises	First aid							
XI week lectures	Fungicides and bactericides in subtropical fruit growing							
XI week exercises	Application of pesticides							
XII week lectures	Zoocides in subtropical fruit growing							
XII week exercises	Determination of the efficacy of fungicides for seed treatment							
XIII week lectures	Zoocides in subtropical fruit growing							
XIII week exercises	Calculating results							
XIV week lectures	Colloquium II. Herbicides in subtropical fruit growing							

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XIV week ex	ercises	Determination of the phytotoxicity of copper sulphate							
XV week lec	tures	Correctional Colloquium II. Herbicides in subtropical fruit growing							
XV week exe	ercises	Calculating results							
Student wo	orkload								
Per week			Per semester						
6 credits x 40/30=8 hours and 0 minuts 3 sat(a) theoretical classes 1 sat(a) practical classes 1 excercises 3 hour(s) i 0 minuts of independent work, including consultations			Classes and final exam: 8 hour(s) i 0 minuts x 16 =128 hour(s) i 0 minuts Necessary preparation before the beginning of the semester (administration, registration, certification): 8 hour(s) i 0 minuts x 2 =16 hour(s) i 0 minuts Total workload for the subject: 6 x 30=180 hour(s) 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) 36 hour(s) i 0 minuts Workload structure: 128 hour(s) i 0 minuts (cources), 16 hour(s) i 0 minuts (preparation), 36 hour(s) i 0 minuts (additional work)						
Student obligations			presence to lectures and exercises, to take seminar paper, colloquiums and final exam						
Consultations				In accordance with students					
Literature			Recommended literature: 1. Inđić, D., Vuković, S. (2012) Praktikum iz fitofarmacije (fungicidi i zoocidi), Novi Sad: Poljoprivredni fakultet; 2. Šovljanski, R., Klokočar-Schmit, Z., Lazić, Sanja (2002): Praktikum iz fitofarmacije, Novi Sad; 3. Mitić N. (2004): Pesticidi u poljoprivredi i šumarstvu u Srbiji i Crnoj Gori, Beograd; 5.Janjić, V. Mitrić, S. (2004): Pesticidi u poljoprivredi i šumarstvu, Banja Luka; 6. Tomlin, C., D., S. (2004): The Pesticide Manual. Brithish Crop protection Council, UK						
Examination methods			Activity on lecturers and exercises 5 points Seminar paper 5 points Two colloquiums, 20 points each = 40 points Final exam 50 points Grades and points: A ( $\geq$ 90 to 100 points); B ( $\geq$ 80 to < 90); C ( $\geq$ 70 to < 80); D ( $\geq$ 60 to < 70); E ( $\geq$ 50 to < 60); F < 50.						
Special remarks									
Comment									
Grade:	F	E		D	С	В	А		
Number of points	less than 50 points	gr ec ar pc	reater than or qual to 50 points nd less than 60 oints	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		