

DESCRIPTION OF A STUDY COURSE – SYLLABUS

Title of a course	Plant protection II				
Head of course	PhD Ivana Dminić Rojnić, Senior Lecturer				
Study programme	Professional undergraduate study Mediterranean Agriculture				
Status of a course	Obligatory				
Year of study	2.	Semester	III	ECTS credits	4
Teaching plan (L + E + S+ Pr)	2+2+0+0				
Goals of a course					
The aim of the course is to introduce students to the most economically significant pests of the Mediterranean cultures, their biology and ecology, characteristic types of damage, and methods and measures for the use of practice and suppression, all in accordance with ecological and sustainable development.					
Conditions for enrolling course					
College of plant protection completed 1					
Learning outcomes on a level of a study programme which includes course					
Outcome 1: Assess the quality of planting material and produce planting material by the appropriate propagation method.					
Outcome 2: Recommend the production technology for vegetables and medicinal plants outdoors and in protected areas according to the requirements of a certain species, and evaluate the quality of vegetables and aromatic herbs on the basis of internal and external quality.					
Outcome 3: Prepare a plan for the cultivation of Mediterranean crops, including economic and cultivation elements.					
Outcome 4: Perform the care of perennial plantations of Mediterranean crops in accordance with the cultivation form and maintain them in view of the technological and ecological conditions of production.					
Outcome 6: Determine economically significant pests and implement preventative and curative methods of plant protection with respect to the production system.					
Outcome 12: Prepare business process organization plan in agricultural production at family run farms.					
Expected learning outcomes on a level of a course					
1. Distinguish between abiotic and biotic causes of plant diseases					
2. Determine plant pests					
3. Determine harmful weeds					
4. Recognize the most economically significant pests of Mediterranean crops					
5. Define the approach and systems for the protection of Mediterranean crops					
6. Determine the harmfulness threshold based on the pest and crop on the basis of the plantation condition					
7. Recommend methods and measures for the protection of Mediterranean crops					
Content of a course					
Introduction into Plant protection II. Plant pathology – term, definition, diseases and their agents. Fungi as agents of plant diseases. Procariots as agents of plant diseases (bacteria, molicuts). Viruses as agents of plant diseases. Abiotic agents of diseases. Infection, incubation, fructification. Epidemiology and prediction of plant diseases. Importance and task of applied entomology. Morphology, anatomy and physiology of insect. Systematises. Class: Insect, Arachnoidae, Myriapoda, Nematelminthes, Gastropod, Mammalia, Aves. Methods of checking entomofauna. Polyfagous pests. Definition of weed, classification of weed, damages caused by weed. Systems of integrated plant protection. Integrated plant protection according to OILB suggestion. Economically important pests of: fruits, vine, vegetables and decorative plants and ways of their control.					
Teaching modes	<input checked="" type="checkbox"/> lectures <input type="checkbox"/> auditory exercises <input checked="" type="checkbox"/> seminars and workshops <input type="checkbox"/> distance learning <input type="checkbox"/> field classes		<input checked="" type="checkbox"/> individual assignments <input type="checkbox"/> multimedia and network <input type="checkbox"/> laboratory <input type="checkbox"/> supervisor's work <input type="checkbox"/> other		

Comments								
Students' obligations								
Grading, evaluation and monitoring of students' work continuously during lectures and exams								
Grading is based upon evaluation of course's learning outcomes' adoption. Grading is performed continuously during lectures and/or during exam, in compliance with the provisions of Regulation on the assessment of students.								
Continuous check-up:								
Outcomes	Pre-exam 1	Pre-exam 2	Pre-exam 3	Pre-exam 4	Assignment	Determination of entomological collection	Threshold	Max
Outcome 1	13				2		7,5	15
Outcome 2		15				5	10	20
Outcome 3		5					2,5	5
Outcome 4			10	10			10	20
Outcome 5			5	5			5	10
Outcome 6			5	5			5	10
Outcome 7			5	5	10		10	20
Percentage of ECTS	0,25	0,25	1	1	0,25	0,25		4
Total	13	20	25	25	12	5	50 %	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

Exam term:

Outcomes	Written exam	Oral exam	Max
Outcome 1	13	2	15
Outcome 2	15	5	20
Outcome 3	5		5
Outcome 4	20		20
Outcome 5	10		10
Outcome 6	10		10
Outcome 7	20		20
Percentage of ECTS	3,5	0,5	4
Total	93	7	100 %

A student has passed the exam if he has acquired a percentage of credits for each learning outcome higher or equal to defined threshold.

Grading:

A student has passed the exam if he has acquired at least 50% of anticipated credits of a specific learning outcome.

If a student has passed learning outcomes of all courses, the accomplished credits (percentages) of all passed learning outcomes are being added, while the final grade is defined upon following table:

Range of credits (percentages)	Numerical grade	ECTS grade
90,00 – 100,00	Excellent (5)	A
75,00 – 89,99	Very good(4)	B
60.00 – 74.99	Good(3)	C

	50,00 – 59,99	Sufficient (2)	D
	0,00 – 49,99	Insufficient (1)	F
Obligatory literature			
1.	Maceljiski, M. i sur. (2006): Štetočinje vinove loze. Zrinski, Čakovec		
2.	Maceljiski, M. i sur. (2003): Poljoprivredna entomologija, Zrinski, Čakovec		
3.	Maceljiski, M. i suradnici (1997.): Zaštita povrća od štetočinja. Znanje d.d. Zagreb.		
Additional literature			
1.	Bjeliš, M. (2005): Zaštita masline u ekološkoj proizvodnji: Graf form d.o.o., Split		
2.	Ciglar, I. (1998.): Integrirana zaštita voćaka i vinograda, Zrinski d. d. Čakovec		
3.	Igrc Barčić, J., Maceljiski, M., (2001): Ekološki prihvatljiva zaštita bilja od štetnika. Zrinski, Čakovec		
4.	Grupa autora (svakogodišnje izdanje broj 1-2): Glasilo biljne zaštite, HDBZ, Zagreb		
5.	Žužić, I. (2008): Maslina i maslinovo ulje: Tipomat, Velika Gorica		

