

Course Unit Descriptor

<b>Study Programme:</b> Precision agriculture		
<b>Course Unit Title:</b> Machines and equipment for integral pesticide application		
<b>Course Unit Code:</b> 19.PRP025		
<b>Name of Lecturer(s):</b> Aleksandar D. Sedlar, PhD, Full Professor		
<b>Type and Level of Studies:</b> Master degree		
<b>Course Status (compulsory/elective):</b> elective		
<b>Semester (winter/summer):</b> winter		
<b>Language of instruction:</b> English		
<b>Mode of course unit delivery (face-to-face/distance learning):</b> face to face		
<b>Number of ECTS Allocated:</b> 5		
<b>Prerequisites:</b> No		
<b>Course Aims:</b> The goal of the course is to familiarize students with and train them for the proper selection, development and exploitation of machines and devices for the controlled application of pesticides with maximum environmental protection and the creation of conditions for the production of healthy food.		
<b>Learning Outcomes:</b> After passing the course, students acquire knowledge and skills that enable them to design, exploit, make the optimal choice and properly use machines and devices for the controlled application of pesticides.		
<b>Syllabus:</b>		
<i>Theory</i>		
Integral plant protection and the influence of pesticide application techniques on its performance. Technique for reduced application of pesticides. Machines and devices for the controlled application of pesticides from the perspective of CDA (Controlled Droplet Application) and environmental protection methods. Modern sprinklers and sprinklers and the importance of their automatic control. Attestation and control of pesticide application techniques according to EN 13790		
<i>Practice</i>		
Laboratory and field tests of machines and devices for controlled application of pesticides according to EN 13790. Selection and use of machines in integral and reduced use of pesticides. Defining the exploitation potential of machines necessary for the controlled application of pesticides. Work with modern systems for automatic control of machine operation. Standards that sprinklers and sprinklers should meet according to EN 13790		
<b>Required Reading:</b>		
1 Bugarin R, Bošnjaković A, Sedlar A. 2015. Mašine u voćarstvu i vinogradarstvu, Univerzitet u Novom Sadu – Poljoprivredni fakultet, s. 344, ISBN 978 -86-7520-329-5.		
2 Sedlar A, Bugarin R, Đukić N. Tehnika aplikacije pesticida, Univerzitet u Novom Sadu – Poljoprivredni fakultet, 2015		
3 Zemanek P, Burg P. Vinogradnicka mehanizace 2010, ISBN 978-80-87091-14-2		
<b>Weekly Contact Hours:</b> 4	<b>Lectures:</b> 2	<b>Practical work:</b> 2
<b>Teaching Methods:</b>		
Studying the course is carried out through: lectures with the use of video presentations and simulations, demonstration exercises in laboratory and field conditions, computational exercises, preparation of laboratory and seminar papers, measurements in laboratory and field conditions and consultations.		

<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	Points	<b>Final exam</b>	Points
Active class participation	5	written exam	
Practical work	5	oral exam	60
Preliminary exam(s)		.....	
Seminar(s)	30		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			