

<b>Study Programme: Precision agriculture</b>			
<b>Course Unit Title: Precision technology for weed management</b>			
<b>Course Unit Code: 19.PRP033</b>			
<b>Name of Lecturer(s): Assoc. Prof. Bojan Konstantinović, PhD; Assoc. Prof Milena Popov, PhD; Asst. Prof. Nataša Samardžić, PhD</b>			
<b>Type and Level of Studies: Master academic studies</b>			
<b>Course Status (compulsory/elective): elective</b>			
<b>Semester (winter/summer): winter</b>			
<b>Language of instruction: english</b>			
<b>Mode of course unit delivery (face-to-face/distance learning): face-to-face</b>			
<b>Number of ECTS Allocated: 5</b>			
<b>Prerequisites: -</b>			
<b>Course Aims:</b> The aim of the course is to acquaint students with the current level of technology development in the field of application precision agriculture in weed control.			
<b>Learning Outcomes:</b> The acquired knowledge of this course represents an upgrade of the previously gained knowledge from the field of weed vegetations of cultivated plants, as well as their precise protection during production.			
<b>Syllabus:</b>			
<i>Theory</i>			
<i>The possibility of applying precision agriculture in weed control. Weed detection techniques. Systems for recognizing, identifying and locating weeds as well as measuring parameters of crops and weeds in the field. GPS guided sprayer for application of herbicides on micro surfaces. Innovations in the field of mechanical suppression weeds in the rows - sprayers and torsion tractors. Recent discoveries in the field of alternative methods weed control - application of laser cannons for weed control. Weed control using open flames and electromagnetic energy.</i>			
<i>Practice</i>			
<i>Getting to know the biology and ecology of the most economically important weed species. Weed mapping methods on fields. Techniques of applying precise technology in weed control.</i>			
<b>Required Reading:</b>			
Konstantinović, I. B., Konstantinović, B. B. (2014): Osnovi herbologije i korovi urbanih sredina, Univerzitet u Novom Sadu, Poljoprivredni fakultet, Novi Sad.			
Weis, M., Gutjahr, C., Ayala, V.R., Gerhards, R., Ritter, C., Schölderle, F. (2008): Precision farming for weed management: techniques. Gesunde Pflanzen			
Auernhammer, H. (2001): Precision farming — the environmental challenge. Computers and Electronics in Agriculture. 30, pp. 31–43.			
Bradley Koch, Rajiv Khosla (2003) The Role of Precision Agriculture in Cropping Systems. Journal of Crop Production (Food Products Press, an imprint of The Haworth Press, Inc.) Vol. 9, No. 1/2 (#17/18), pp. 361-381.			
<b>Weekly Contact Hours: 2+2</b>	<b>Lectures: 30</b>	<b>Practical work: 30</b>	
<b>Teaching Methods:</b>			
<b>Lectures and Practical classes.</b>			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	Points 40	<b>Final exam</b>	Points 60

Colloquium	20	oral exam	60
Seminar (s)	20		