

Course Unit Descriptor

Study Programme: Agronomy			
Course Unit Title: Fertilization in intensive crop production			
Course Unit Code: ZDAI2047			
Name of Lecturer(s): Prof. Dr. Maja, S Manojlović			
Type and Level of Studies: Doctoral studies			
Course Status (compulsory/elective): Elective			
Semester (winter/summer): Summer			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning):			
Number of ECTS Allocated: 10			
Prerequisites:			
Course Aims: Acquiring advanced knowledge of the planning system of fertilization in the intensive crop production in different agro-ecological systems.			
Learning Outcomes: Students are trained to apply their knowledge in their research work, in the extension service for the production of food, seeds and planting materials.			
Syllabus: <i>Theory</i> The soil fertility control system. Principles of fertilizer application in intensive crop production. Fertilization to raise the quality of the products. Biofortification. Fertilization of field crops. The application of fertilizers in orchards and in grape production. The application of fertilizers in vegetable production. Application of fertilizer in the production of flowers. Fertilization of grass. <i>Practice</i> Taking georeferenced soil samples in order to control soil fertility and formation of a soil information system. Fertilizer recommendation plan (quantity, doses and balance of elements, time and method of application) in the soil information system. Fertilizer recommendation for each plant species.			
Required Reading: 1. Soil fertility and fertilizers, Havlin J.L. et al., Pearson education, Inc. Upper Saddle River, New Jersey, 2005. 2. Singh BR, McLaughlin, MJ, Brevik E (eds) (2017) The Nexus of Soils, Plants, Animals and Human Health- Catena-Schweizerbart, Stuttgart, 87-98			
Weekly Contact Hours:	Lectures:	Practical work: 0	
Teaching Methods: Classes are conducted with the use of modern technology (computer, video beam). Laboratory studies.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation		written exam	
Practical work		oral exam	50
Preliminary exam(s)		
Seminar(s)	50		