

## Course Unit Descriptor

<b>Study Programme: Agronomy with modules</b>			
<b>Course Unit Title:</b> Protection, use and reclamation of agricultural land			
<b>Course Unit Code:</b> 3DAI3087			
<b>Name of Lecturer(s):</b> assistant professor Vladimir Ćirić			
<b>Type and Level of Studies:</b> Doctoral studies			
<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> 10			
<b>Prerequisites:</b> Completed master study			
<b>Course Aims:</b> The objective of the course is to acquire knowledge about the soil as a natural resource, the types of degradation and its protection and repairs by applying various meliorative measures, recultivation and remedialization.			
<b>Learning Outcomes:</b> Knowledge in this area enables solving problems related to the protection of the use and soilscaping on scientific grounds. At the end of the module, a student is expected to demonstrate knowledge of the genesis, composition, characteristics and regimes of various types of soil; independently organizes, plans and performs soil-ameliorative research on scientific principles; proposes ameliorative measures for achieving and maintaining a high level of fertility of meliorated soils; The student should be trained for scientific critical analysis and interpretation of experimental analytical results and their presentation through oral presentation and written report; presentation of professional and scientific knowledge and ideas at a high level; writing scientific papers and seminars in this field.			
<b>Syllabus:</b> Theory: Soil as a natural resource. Basic soil functions. Types of degradation: Degradation by soil erosion. Degradation of soil by in-situ damage. Degradation of chemical, physical and biological processes in soil. Legislation and directives for the prevention of soil degradation. The impact of technological progress on soil degradation processes. Soil protection measures. Remediation and recultivation of contaminated and damaged soils. Agromeliorative characteristics of the soil of Serbia (their genesis, classification, distribution and reclamation). Practice: 1. Soil Survey. 2. Laboratory tests: active and potential acidity, salinity and alkalinity of the soil. 3. Fractionation of soil organic matter 4. Methods for the determination of heavy metals. 5. Parameters related to the assessment of soil contamination.			
<b>Required Reading:</b> 1. Sekulić P., Kastori R., Hadžić V. : Zaštita zemljišta od degradacije. Naučni institut za ratarstvo i povrtarstvo Novi Sad, 2003. 2. R. Kastori, D. Bogdanović, I. Kadar, N. Milošević, P. Sekulić, M. Pucarević: Uzorkovanje zemljišta i biljaka nezagađenih i zagađenih staništa. Naučni institut za ratarstvo i povrtarstvo Novi Sad, 2006 3. Down to earth: Soil degradation and sustainable development in Europe. Environmental issue series No 16. European Environment Agency, ISBN 92-9167-398-6, EEA, Copenhagen, 2000. 4. Nešić Lj., Belić M., Ćirić V (2016): Zemljišta Srbije, Poglavlje u monografiji: Nikolić, R. (Ed.) Zemljište i poljoprivredna tehnika, Poljoprivredni fakultet Novi Sad, 13-53. ISBN: 978-86-499-0206-0. UDK: 631.4(082), 631.3(082). 5. Milivoj Belić, Ljiljana Nešić, Vladimir Ćirić: Praktikum iz pedologije, Poljoprivredni fakultet Novi Sad, 2014. 6. MONTANARELLA, Luca; RUSCO, Ezio. Threats to soil quality in Europe. 2008.			
<b>Weekly Contact Hours:</b>	<b>Lectures: 45</b>	<b>Practical work: /</b>	
<b>Teaching Methods:</b> Teaching lectures through video lectures			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	written exam	40
Practical work	10	oral exam	20
Preliminary exam(s)	/	.....	
Seminar(s)	20		
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			