

Course Unit Descriptor

Study Programme: Soil, plant and genetics. Module: Organic agriculture			
Course Unit Title: Global environmental change and sustainable use of natural resources			
Course Unit Code: 19.ZB2001			
Name of Lecturer(s): Manojlović, S., Maja; Lalić Branislava			
Type and Level of Studies: Master studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): Winter			
Language of instruction: English			
Mode of course unit delivery (face-to-face/distance learning): Face-to-face			
Number of ECTS Allocated: 5			
Prerequisites:			
Course Aims: The course aims to provide students with the basic concepts to understand global environmental change and sustainable use of natural resources.			
Learning Outcomes: The course is designed to provide fundamental information to enable students to have reasonable understanding of: global changes which are result of intensive technological development and significant population growth (climate change, climate variability, soil degradation and biodiversity reduction), as well as feedback between global changes and agricultural production. Also, students will improve its knowledge about national and international laws and conventions.			
Syllabus: <i>Theory</i> Global environmental changes: climate change, climate variability, soil degradation and biodiversity reduction. Carbon cycle and GHG emission. Nitrogen cycle, volatilization, denitrification and leaching. Phosphorus, water eutrophication. Soil degradation and GHG emission. Assessment of climate change impact on agriculture. Measures to reduce GHG emission from agriculture. Sustain development, concept problems and theoretical standpoints. Social components of sustainable development in agriculture and rural communities. Legislation and Conventions.			
Required Reading: 1. Kaiser, H.M., Drennen, T.E., 1993: Agricultural Dimensions of Global Climate Change, CRC, pg. 328. 2. Singh, B.P., Cowie, A.L. and Chan, K.Y. eds., 2011. Soil health and climate change. Springer Science & Business Media. 3. Nutrient management legislation in European countries, ed. P.De Clercq et al., WageningenPress, The Netherlands, 2001.			
Weekly Contact Hours:	Lectures: 4	Practical work: 0	
Teaching Methods: Lectures, Practical classes/Calculus, Consultations			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation		written exam	50
Practical work		oral exam	
Preliminary exam(s)		
Seminar(s)	50		

