

Study program: Organic crop and livestock production			
Type and level of study: Bachelor academic studies			
Course Title INTRODUCTION TO MICROBIOLOGY			
Teachers: Dr. Danka Radić, Assistant professor			
Status: Obligatory, semester III			
ECTS: 7			
Prerequisite: None			
The goal of course The goal of this subject is to point out the necessity of knowledge for basic presence and classification of microorganisms in environment (soil, water, air) , their mode of replication, pathogenicity and their use and application in modern biotechnology and organic agriculture The aim of the course is that the theoretical and practical knowledge about the role of microorganisms in continuous cycling of matter in the soil, since its inorganic to organic forms in the synthesis of organic matter, the emergence and preservation of productive soil properties, processes and humification dehumification, as well as the role and significance microorganisms in food plants and their completely dependent, relationship in the rhizosphere.			
The outcome of the subject To learn about the various types of microorganisms in environment and their role in biotechnology and organic agriculture.			
Syllabus <i>Theoretical study</i> – Introduction to microbiology. Classification and their replication. Microorganisms, their role in infection, pathogenicity and disease in animals. Importance of m.o in biotechnology and organic agriculture. The role of microorganisms in the soil. The processes of humification; The microbiology fertilizers (micro-organism in the preparation of manure, microorganisms in the preparation of compost, manure-microbial bioproducts, application of microbiological fertilizers. Microbiology of soil fertility (microorganisms in the preparation of herbal asimilativa, creating the structure of the soil microorganisms as indicators of soil fertility) <i>Practical classes</i> - Cultivation and identification of microorganisms in vitro in the laboratory Analysis of animal behavior in different circumstances intensive and extensive farming. Use of biofertilizers in crop production; Setting field trials on the topic of classic mineral and microbial fertilizers in crop production and the impact on yield ..			
Literature 1. Microbiology, Tortura, Funke, Case, 11th Edition, Pearson. 2. Lecture notes, Scientific papers			
Number of lectures: 5			Other Classes
Lectures: 3	Practices: 2	Other forms of teaching:	
Teaching methods: Lectures, discussions with students, experimental exercises, preparation and public defense of practical applied work.			
Score (maximum 100 points)			
Pre-commitments	Poens	The final exam	Poens
Participation	5	Written exam	30
Practical classes	10		
Colloquia	30		
Seminars	15		
<i>Total</i>	70		30