

Study program: Ecological agriculture			
Type and level of study: Master academic studies			
Course Title: Agro-genetic resources and their conservation			
Professors: Dr Dragan G. Perović, Full Professor			
Status: Optional 2, semester II			
ECTS: 6			
Prerequisite: None			
The goal of the course			
The aim of the course is to provide students with basic knowledge about the types and importance of agricultural genetic resources, their conservation as well as the methods and techniques of their utilization in organic production. The aim of this course is to teach students why the abundance of diversity of plants is necessary to keep land from further erosion and why it is important to protect the ecological balance for future generations.			
The outcome of the course			
After successfully completing the pre-exam and exam commitments student will have the basic knowledge about agricultural genetic resources as a starting material of natural variability of cultivated plants and methods, techniques and concepts that are used in the conservation and the use of agro-genetic resources in organic agriculture. An important aspect of this course is to examine the biological diversity and diversity within various species and between species and ecosystems as an important resource for human existence, with a crucial role in sustainable development.			
Syllabus			
<i>Theoretical study</i> - Theoretical study involves systematizing individual components of genetic resources in agriculture and local population, genotypes, old and new varieties, plant breeding material of actual or potential value. Methods of conservation: Ex situ conservation, in situ conservation, on farm conservation. Conventional and marker-based estimation of the authenticity of the collected populations, ecotypes and old varieties. Preservation of duplicate genotypes of special significance (threatened, resistant and carrier etc.). The formation and maintenance of field collection, collection and preservation of wild relatives, standardization of evaluation methods. <i>Practical lessons</i> - Interactive teaching with laboratory and field exercises, discussions with experts on certain topics, essay.			
Literature			
1. Engels, J.M.M. & Visser, L. 2003. A guide to effective management of germplasm collections. IPGRI. Rome, Italy. (http://www.ecnc.nl/)			
2. Nagoya protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization to the convention on biological diversity. Convention on Biological Diversity United Nations https://www.cbd.int/abs/doc/protocol/nagoya-protocol-en.pdf			
3. K.S. Varaprasad and N. Sivaraj (2010):Plant genetic resources conservation and use in light of recent policy developments Electronic Journal of Plant Breeding, 1(4): 1276-1293 (July 2010)			
Number of lectures: 4			Other Classes
Lectures: 2	Practices: 2	Other forms of teaching:	
Teaching methods: Practical teaching in the field, oral explanation and practical introduction to the agroecological work operations and work on performing research and development research.			
Score (maximum 100 points)			
Pre-exam commitments	Points	Final exam	Points
Activity during lectures	10	Written exam	
Practical classes	10	Oral examination	50
Preliminary exam	20		
Seminars	10		
<i>Total</i>	50		50