

Study program: Agricultural Sciences			
Type and level of study: Doctoral academic studies			
Course Title: Genetic Resources in Agronomy and Breeding			
Teacher(s): Dr Perovic G Dragan, associate professor and dr Pankovic M. Dejana full profesor			
Status: Elective 3, IV Semester			
ECTS: 11			
Prerequisite: None			
The goal of the course: The goal of course is to provide doctoral students advanced knowledge of a plant agro genetic resources, their conservation as well as the conventional and molecular methods and techniques for their utilization in breeding for conventional agriculture and organic production. The subject is an upgrade of an selective subject genetic resources in agronomy and breeding. The aim of this course is to provide students, who have acquired basic knowledge about the importance of plant diversity and its preservation from further erosion, to learn how these resources can be used to create variety of crops for conventional and organic production.			
The outcome of the subject: After the students successfully completed the pre-exam and exam commitments doctoral candidate will possess advanced theoretical and practical knowledge about the utilization of plant agro genetic resources in breeding for organic agriculture. An important aspect of this course is to examine the biological diversity and diversity within the various species and between species and ecosystems, on the one hand is an important resource for sustainable development on the other hand supplies farmers organic farming appropriate varieties and lines.			
Syllabus: <i>Theoretical study</i> - Theoretical study involves acquiring knowledge about the domestication of cultivated species, original and modern selection as the main source of erosion of genetic variability. Doctoral further expand their knowledge of plant gene bank, their history and current trends in their work, as well as methods of conservation: Exsitu and Insitu conservation and on farm conservation. Since the subject is an upgrade of an elective subject agro genetic resources and their preservation, there is an emphasis on pre-breeding in and use of molecular markers in the target selection of varieties for conventional and organic production. Methods triage genotypes with desirable traits to phenotypic and genotypic level in different types of plant agro genetic resource share are such as the local population, old and new varieties and wild relatives of cultivated plants are designed for theoretical and practical training. . <i>Practical classes</i> -. Practical lessons include phenotypic evaluation of plant genetic collections and segregating populations, interactive classes with laboratorijske and field exercises, discussions with experts in certain topics and visits to scientific institutions engaged in breeding.			
Literature: GLOBALLY IMPORTANT AGRICULTURAL HERITAGE SYSTEMS Combining agricultural biodiversity, resilient ecosystems, traditional farming practices and cultural identity. (2018), FAO, Rome, Italy, 1-50 p. http://www.fao.org/3/i9187en/I9187EN.pdf			
Number of lectures:			Other Classes
Lectures: 4	Practices:	Other forms of teaching:	Student research work:7
Teaching methods:			
Score for grading (maximal 100 points)			
Pre-commitments	Poens	The final exam	Poens
Activity during lectures	10	Written exam	20
Practical classes	40	Oral examination	20
Colloquia			
Seminars	10		
<i>Total</i>	60		40