

Course title: PLANT GENETIC RESOURCES				
Course code	Subject Status	Semester	ECTS credits	Number of hours
291106100	Obligatory	II	4	3L + 1E

The course is organized for: Academic basic studies of agriculture, Study program Crop production (studies last for 6 semesters, 18 ECTS credits)

Prerequisites: No prerequisites required

Course aims: The course aims to provide students with knowledge about the importance of biodiversity and agro-biodiversity as its most important component, as well as introduce students to the possibility and the need for conservation and sustainable use of plant genetic resources for food and agriculture

The name of the teacher and assistant: Prof. Dr. Zoran Jovović

Teaching method: Lectures, exercises, laboratory exercises, field activities, seminar papers, consultations and others.

WORK PLAN:

Preparatory weeks		Preparation and semester enrollment
Week 1	Lectures	Introductory remarks; Biodiversity; The importance of agro-biodiversity
	Exercises	Inventory and collection of plant genetic resources
Week 2	Lectures	Basic data on Montenegrin agriculture
	Exercises	Conservation of the collected plant material
Week 3	Lectures	State of plant genetic resources in Montenegro; The existing collection
	Exercises	Regeneration of the deposited plant material
Week 4	Lectures	Legislation and other relevant documents related to plant genetic resources
	Exercises	Laboratory exercises
Week 5	Lectures	COLLOQUIUM 1
	Exercises	Laboratory exercises
Week 6	Lectures	The program on conservation of plant genetic resources in agriculture
	Exercises	Laboratory exercises
Week 7	Lectures	Inventory and collection of plant genetic resources; Passport data
	Exercises	TEST 1
Week 8	Lectures	Plant Gene Bank
	Exercises	Characterization and evaluation of conserved samples
Week 9	Lectures	<i>In situ</i> conservation; <i>On farm</i> conservation
	Exercises	Assessment of agronomic traits
Week 10	Lectures	COLLOQUIUM 2
	Exercises	Montenegrin plant gene bank - a system of functioning
Week 11	Lectures	<i>Ex situ</i> conservation
	Exercises	Field collection of plant genes
Week 12	Lectures	Characterization and evaluation of accessions by applying modern methods; Descriptors
	Exercises	<i>On farm</i> conservation
Week 13	Lectures	Information and documentation system; Database
	Exercises	Documentation
Week 14	Lectures	Sustainable use of genetic resources for food and agriculture
	Exercises	Database
Week 15	Lectures	Strengthening the public awareness about the importance of preserving agro-biodiversity; National and international organizations involved in the conservation and sustainable use of genetic resources for food and agriculture
	Exercises	TEST 2
Week 16	FINAL EXAM	
Week 17	Semester verification and enrollment rating	
Weeks 18-21	Additional lessons and corrective exam	

Obligations of students during classes:	Students are required to attend classes and all other planned activities and actively participate in making set tasks within the group
Student workload in hours:	
Weekly: 6 credits x 40/30 = 8 hours Structure: 2 hours of lectures, 1 hour of exercises and 5 hours of student work including consultations	During the semester: Teaching and the final exam: 8 hours x 16 = 128 hours Necessary preparation (before semester administration, enrollment and verification): 2 x 8 hours = 16 hours Total hours for the course: 6 x 30 = 180 hours Additional work: 36 hours Structure: 128 hours (lectures) + 16 hours (preparation) + 36 hours (additional work)
Recommended literature: <ul style="list-style-type: none"> - Salgotra, R.K. and Zargar, S.M. (2020): Rediscovery of Genetic and Genomic Resources for Future Food Security, Springer - Salgotra, R.K. and Gupta, B.B. (2016): Plant Genetic Resources and Traditional Knowledge for Food Security. Springer - M. Penčić (2005): <i>Biljni genetički resursi (izabrani radovi)</i>, Beograd - Z. Jovović, D. Stešević, V. Meglič, P. Dolničar (2013): <i>Old potato varieties in Montenegro</i>. University of Montenegro, Biotechnical faculty Podgorica - FAO (2012): <i>Conservation and sustainable use under the International treaty</i>, Rome - FAO (2010): <i>The second report on The state of the world's plant genetic resources for food and agriculture</i>, Rome Additional literature: <ul style="list-style-type: none"> - N. Maxted, M. Ehsan Dulloo, B.V. Ford-Lloyd, L. Frese, J. Irionado, M.A.A. Pinheirode Carvalho (2011): <i>Agrobiodiversity conservation, securing the diversity of crop wild relatives and landraces</i>, CABI, UK, CABI, USA - L. Glowaka, F. Burhenne-Guilmin, H. Synge (1994): <i>A guide to the convention on biological diversity</i>, IUCN, Gland, Switzerland and Cambridge, UK 	
Knowledge testing and grading: <ul style="list-style-type: none"> - Presence 5 points - Colloquium 2 x 15, total 30 points - Test 10 points - Seminar paper 15 points - Final exam 40 points The student passed the exam if cumulatively collected 50 points	
Learning outcomes: After successfully passing the exam student will be able to: <ul style="list-style-type: none"> - recognize the importance of biodiversity and the potential that Montenegro has in this area - understand the impact of agricultural production on biodiversity - apply knowledge in the field of management, access and sustainable use of plant genetic - understand the functioning of the system of plant gene bank - to contribute to raising the public awareness about the importance of plant genetic resources - contribute to their conservation and sustainable use 	
Teacher who provided the information: Prof. Dr. Zoran Jovović e-mail: zoran.jovovic.btf@gmail.com	