

Course Unit Descriptor

Study Programme: Soil, plant and genetics		
Course Unit Title: Special Plant Breeding		
Course Unit Code: 19MZBGO01I007		
Name of Lecturer(s): Velimir N. Mladenov		
Type and Level of Studies: master academic studies		
Course Status (compulsory/elective): elective		
Semester (winter/summer): winter		
Language of instruction: serbian		
Mode of course unit delivery (face-to-face/distance learning): face to face		
Number of ECTS Allocated: 5		
Prerequisites: The Theory of Plant Breeding		
Course Aims: To familiarize the student with the latest achievements in the field of biotechnology and new methods that can be used in plant breeding. The course is based on theoretical assumptions and practical achievements		
Learning Outcomes: It enables the student to understand contemporary trends in plant breeding and indicate which scientific disciplines they should focus his future work on.		
Syllabus: <i>Theory</i> Wheat breeding: importance, origin, botanical affiliation and pollination system; starting material for breeding and its use; breeding methods; selection methods and preliminary examination of selection material; refinement of certain properties. Maize breeding: importance, origin, botanical affiliation and pollination system; starting material for breeding and its use; breeding methods; selection methods and preliminary examination of selection material; refinement of certain properties. Industrial plants breeding (sunflower, oilseed rape, soy, sugar beet): importance, origin, botanical affiliation and pollination system; starting material for breeding and its use; breeding methods; selection methods and preliminary examination of selection material; refinement of certain properties. Alfalfa breeding: importance, origin, botanical affiliation and pollination system; starting material for breeding and its use; breeding methods; selection methods and preliminary examination of selection material; refinement of certain properties. Vegetables breeding: importance, origin, botanical affiliation and pollination system; starting material for breeding and its use; breeding methods; selection methods and preliminary examination of selection material; refinement of certain properties. <i>Practice</i> The practice will be followed by teaching units and the students will prepare seminar papers from certain areas, which they will present during the practice. For the preparation of seminar papers, they will use the latest sources of literature from international journals.		
Required Reading: 1. Borojević, S. 1992: Principi i metodi oplemenjivanja bilja. Naučna knjiga, Beograd. 2. Hallauer, A. R. (Ed.) 2001: Specialty corn. CRC Press, New York. 3. Bernardo, R. 2002: Breeding for quantitative traits in plants. Stemma Press, MN, USA.		
Weekly Contact Hours:	Lectures: 45	Practical work: 30
Teaching Methods: The theoretical part of the teaching is conducted in the faculty lecture halls. Teaching is conducted through teacher lectures and student group work within the given topics.		
Knowledge Assessment (maximum of 100 points):		

Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	30
Practical work	10	oral exam	20
Preliminary exam(s)		
Seminar(s)	30		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.