

Course Unit Descriptor

Study Programme: Crop Science			
Course Unit Title: <i>Diseases and Pests of Field Crops</i>			
Course Unit Code: 19.RIP009			
Name of Lecturer(s): prof. Dragana Budakov, Assoc. Prof. Aleksandra Konjevic			
Type and Level of Studies: Undergraduate academic studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): winter			
Language of instruction: Serbian/English			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 6			
Prerequisites: None			
Course Aims: Introduction to economically most important diseases and pests of field and vegetable crops, along with various monitoring and control measures..			
Learning Outcomes: Students acquire basic knowledge of phytopathology and entomology related to field and vegetable production, including knowledge about monitoring and control measures.			
Syllabus:			
<i>Theory</i>			
Phytopathology: Definition, importance and history of phytopathology, economically significant mycoses, bacterial diseases and viruses of field and vegetable crops. The appearance, distribution patterns, hosts, harmfulness, symptoms, characteristics of the pathogens, epidemiology, life cycle and management. Entomology: Morphology and anatomy of insects (Insecta), nematodes (phylum Nematoda), mites (Acarina), myriapods (Myriapoda, class Diplopoda), snails and slugs (Gastropoda, Mollusca), birds (Aves), and rodents (Rodentia). Classification, biology and ecology, distribution and economic importance of main pest species in field and vegetable crops. Main crop protection measures, including prophylaxis. Introduction to general entomology, morphology and anatomy of insects, development and reproduction, systematic. Applied entomology – main pest species in field and vegetable crops, as well as in green- and storage-houses. Symptoms, monitoring and Introduction to Integrated Pest Management.			
<i>Practice</i>			
Phytopathology: Types of symptoms of diseases of field and vegetable crops. Fundamentals of morphology and systematics of causal agents of plant diseases, life cycles. Practical work on the plant material (microscopy) in order to determine the economically most important mycosis of field and vegetable crops. Entomology: Insect morphology and classification. Anatomy (individual examination of preserved insects with drawings and schematic pictures). Insect development and types of metamorphosis, immature stages (nymphs and larvae), pupal stage and adults. Morphological characteristics of the main harmful and beneficial insect orders, families and species. Basic identification methods of polyphagous pest species; basic identification methods for specific pests in crop and vegetable production.			
Required Reading:			
Balaž, F., Balaž, J., Tošić, M., Stojšin, V., Bagi, F. (2010): Phytopathology. Diseases of crops and vegetables (in Serbian). Faculty of Agriculture Novi Sad.			
Vico, I. (2018): Phytopathology (in Serbian). University of Belgrade, Faculty of Agriculture			
Štrbac, P., Čamprag, D. (2013): Integrated pest management (Cultural Practices) and Pests in field crops (in Serbian). Faculty of Agriculture Novi Sad.			
Kereši, T., Sekulić, R., Konjević, A. (2018): Special entomology 1 (Part – insects of field crops) (in Serbian). Faculty of Agriculture Novi Sad.			
<i>Study materials will be provided in English on request.</i>			
Weekly Contact Hours: 7		Lectures: 4	Practical work: 3
Teaching Methods:			
Lectures, Practical classes, interactive and teamwork, individual tasks and demonstrations			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation		written exam Plant Pathology	35
Colloquium Phytopathology	15	oral exam Entomology	35
Colloquium Entomology	15	
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			