

Study Programme: Organic Agriculture			
Course Unit Title: <i>Diseases and pests in organic agriculture</i>			
Course Unit Code: 19.ORG011			
Name of Lecturer(s): Associate Professor Dragana B. Budakov, Associate Professor Aleksandra M. Popović			
Type and Level of Studies: undergraduate academic studies			
Course Status (compulsory/elective): Compulsory			
Semester (winter/summer): summer			
Language of instruction: ENG			
Mode of course unit delivery (face-to-face/distance learning): face-to-face			
Number of ECTS Allocated: 5			
Prerequisites: None			
Course Aims: Introducing the harmful pests and economically most important diseases in plant production, which provides the basis for their timely management or reduction of the population to tolerate level according to the principles of organic production			
Learning Outcomes: This course will provide the basis for recognizing the most important pests and diseases symptoms in organic plant production. Special attention will be addressed to their biology and ecology, as well as the degree of damage to the affected plants, which will enable timely and cost-effective management in accordance with good agricultural practice in the framework of organic production.			
Syllabus: <i>Theory</i> Phytopathology: History of plant pathology, basic information on parasitism, pathogenesis, epidemiology, basic characteristics of plant pathogenic fungi, bacteria and viruses, general principles for control of plant diseases, biocontrol. The economic importance, distribution, symptoms, epidemiology and management of the most important diseases of cultivated plants in organic production. Entomology: Impact of polyphagous pest species on quantity and quality of agricultural products yield. Polyphagous pest species in field crops, cereals and arable crops, industrial plants, forage crops, vegetables, fruits and vineyards. Importance and distribution of pest species, biology and ecology of their development. Crop protection measures in organic production. Integrated pest management in organic production including administrative measures, cultural practice, mechanical measures and biological control. <i>Practice</i> Phytopathology: General techniques in laboratory work with phytopathogenic microorganisms. Identification of pathogens, the detection of pathogens. Types of symptoms of plant diseases. Fundamentals of morphology and systematics of the causal agents of plant diseases, lifecycles. Entomology: Morphology of insects, use of keys for determination of live and preserved material, recognition of the most important pest species feeding symptoms of organic cultivated plants.			
Required Reading: 1. Alford David (2013) <i>A Textbook of Agricultural Entomology</i> , Wiley Blackwell. 2. Van Emden (2013) <i>Handbook of Agricultural Entomology</i> , Wiley Blackwell. 3. George Agrios (2005) <i>Plant Pathology</i> , 5th edition, Academic Press.			
Weekly Contact Hours:	Lectures: 3	Practical work: 2	
Teaching Methods: Lectures and Practical classes, Consultations if needed.			
Knowledge Assessment (maximum of 100 points):			
Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	30
Written exam	30	oral exam	30
The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.			