

Course: <b>Plant Pathology</b>		
Semester	ECTS	Teaching hours
<b>V</b>	<b>6</b>	<b>4L + 1P</b>

**Basic undergraduate academic studies: Plant production (6 semester, 180 ECTS)**

**Course description**

The aim of the course is to enable students to adopt scientific knowledge about plant diseases, mechanism of their genesis, causal agents, interaction of causal agents, host plants and environmental conditions, as well as on the distribution and economic significance, symptoms, morphological description of pathogens, life cycle development, hosts and possible control measures of the most important diseases of cultivated plants.

**Learning outcomes**

After passing the exam, the student will acquire knowledge that allows him to:

- distinguish the causes of plant diseases
- recognize the symptoms of the most significant diseases of agricultural crops
- describe the basic characteristics of plant disease agents
- explain the interaction of pathogens, host plants and environmental conditions
- describe the most important fungal, bacterial and viral diseases of cultivated plants, their causal agents, life cycle development and ways of their transmission
- list the control measures that can be applied in the protection of agricultural crops from the most significant diseases

**Lecturer:** Prof. Jelena Latinović, PhD

**Learning methods:** Lectures, Laboratory practice, Field work, Seminars

**Weekly class schedule**

I week	Lectures	Introduction, significance and causes of plant diseases
	Practicum	Introduction to work in the plant pathology laboratory - equipment
II week	Lectures	Non-parasitic, Parasitic diseases
	Practicum	Work in the plant pathology laboratory - nutrient media
III week	Lectures	Basic characteristics of plant disease causal agents
	Practicum	Work in the plant pathology laboratory - microscope and microscopy
IV week	Lectures	Symptomatology, Pathogenesis
	Practicum	Recognizing the symptoms of diseased plants
V week	Lectures	Epidemiology
	Practicum	Recognizing the symptoms of diseased plants
VI week	Lectures	Plant resistance to diseases, Control measures
	Practicum	Observation on herbarized material
VII week	Lectures	Mycoses: Classification of fungi, Kingdom of Protozoa, Kingdom of Chromista
	Practicum	Observation on herbarized material
VIII week	Lectures	Kingdom of Fungi: Division Chytridiomycota, Division Ascomycota
	Practicum	Laboratory exercises: microscopy
IX week	Lectures	Kingdom of Fungi: Division Ascomycota
	Practicum	Laboratory exercises: microscopy
X week	Lectures	Kingdom of Fungi: Division Ascomycota
	Practicum	Laboratory exercises: microscopy
XI week	Lectures	Kingdom of Fungi: Fungi Imperfecti
	Practicum	Laboratory exercises: microscopy
XII week	Lectures	Kingdom of Fungi: Fungi Imperfecti
	Practicum	Field practice
XIII week	Lectures	Kingdom of Fungi: Division Basidiomycota
	Practicum	Sample processing and microscopy
XIV week	Lectures	Plant bacteria and bacterial diseases, Parasitic flowering plants
	Practicum	Basic methods in the identification of plant pathogenic bacteria
XV week	Lectures	Plant viruses and viral plant diseases
	Practicum	Basic methods in the identification of plant pathogenic viruses

**Literature:** Agrios, G.N. (2005): Plant Pathology. Academic Press, USA. Material from Internet;

Lecture presentations.

**Forms of knowledge assessment and grading:**

Activities in lectures and exercises: 5 points

Seminar paper: 5 points

Two colloquia: 40 points

Final exam: 50 points

A passing grade is obtained if at least 50 points are accumulated cumulatively

Grading	A	B	C	D	E
Number of points	90-100	80-89	70-79	60-69	50-59

**Data prepared by: Prof. dr Jelena Latinović**