Course Unit Descriptor

Study Programme: Landscape architecture

Course Unit Title: Protection of Horticultural Plants

Course Unit Code: 19.PEJ029

Name of Lecturer(s): Full Professor Maja U. Meseldžija, Full Professor Slavica M. Vuković, Full Professor Aleksandra Popović; Assistant Professor Marta Loc

Type and Level of Studies: undergraduate academic studies

Course Status (compulsory/elective): compulsory

Semester (winter/summer): winter

Language of instruction: english

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: -

Course Aims: Introduction to economically significant ornamental plants diseases and pests, as well as mastering basic knowledge on pesticide application and possibility of integrated disease, pest and weed management tools in protection of horticultural plants.

Learning Outcomes: Skillfulness for disease and pest identification on horticultural plants that secures basics for adequate control or population reduction of pest organisms to acceptable level, and for fungicide, zoocide and herbicide application in concept of integrated management.

Syllabus:

Theory

Occurrence, distribution and harmfulness of pathogens on horticultural plants; economically most significant pathogens on horticultural plants; disease symptoms; morphological traits, biology and epidemiology of pathogenic organisms. Basic morphological traits, distribution, significance, harmfulness, biology and ecology of horticultural plants pests; Basic pesticide classes; formulations of pesticidal products; application conditions; possible effects and evaluation of fungicides, zoocides and herbicides as well as consequences of their application; additional substances in plant protection; development and implementation of pesticide application strategy in horticultural plants.

Practice

Disease symptoms, morphological traits and development cycles of plant pathogens, microscopic observations of reproductive structures of fungal pathogens; use of diagnostic laboratory tools; Pest insects morphology, biology and damage occurrence on horticultural plants (in collections, atlases, photos, in field etc.). Examination and recognition of prepared and conserved insects (different development stages) and damages caused by their activity. Forms of pesticide formulations and methods of application; toxicity and efficacy assessments of fungicides, zoocides and herbicides; pesticide phytotoxicity assessments; possibility of mixing pesticides; development of programs for horticultural plants protection.

Required Reading:

Ivanović, M., Ivanović, D. (2001): Mikoze i pseudomikoze biljaka. Univerzitet u Beogradu.
Arsenijević, M. (1997): Bakterioze biljaka. Poljoprivredni fakultet, Novi Sad.
Janjić V. (2005): Fitofarmacija. Društvo za zaštitu bilja Srbije, Beograd
Kramer, W., Schirmer, U., Jeschke, P., Witschel, M. (2012): Modern Crop Protection Compounds (Herbicides; Fungicides; Insecticides) Second, Revised and Enlarged Edition, Wiley-VCH Verlag & Co. KgaA, Weinheim, Germany.
Spasić, R. (ed.) (2017): Pesticidi u poljoprivredi i šumarstvu u Srbiji. Društvo za zaštitu bilja, Beograd.
Inđić, D., Vuković, S. (2012): Praktikum iz Fitofarmacije (fungicidi, zoocidi). Poljoprivredni fakultet, Novi Sad.

Weekly Contact Hours: 4+4	**Lectures:** 4x15	**Practical work:** 4x15

Teaching Methods:

Lectures – oral presentation and direct communication; visual (presentations, illustrations); Practical classes – laboratory-experimental methods and demonstrations.

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	Points	**Final exam**	Points
Active class participation		written exam	
Practical work		oral exam	70
Preliminary exam(s)	30	…….	
Seminar(s)			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,

project presentation, seminars, etc.