

PHYTOPATHOLOGY (IIIInd Year of study, SEMESTER V)

Credit value (ECTS) 6

Course category

Domain (Imposed)

Course holder:

Prof univ. dr. Ulea Eugen

Discipline objectives (course and practical works)

The analytical program aims to instill the knowledge by students concerning etiology, symptomatology, the epidemiology and measures for prevention and control of plant disease. Practical application aims to familiarize students with the technical work in the laboratories of plant protection, and with the recognition of disease.

Contents (syllabus)

Course (chapters/subchapters)
General notions about plant diseases. Disease definition. Disease classification
Mode of nutrition and spread of the pathogens..
Plant disease epidemiology. Plant disease resistance.
General technologies for prevention and integrated control.
Specific characters of pathogen agents. Viruses. Mycoplasmas. Bacterias.
Fungi (morphology, asexual and sexual propagation, class characterization of fungi).
Parasitical plants in horticultural crops.
Cereal diseases. Beans and peas disease.
Oily plant diseases
Vegetables diseases.
Fruit trees and shrubs diseases
Sugar beet and potato diseases.
Grapevine diseases
Medicinal and aromatic plant diseases
Practical works
Parasitic aspects- anatomical and morphological changes produced by viruses, mycoplasma, bacteria and pathogenic fungi
Viruses: biology, symptoms, identification
Bacteria, mycoplasma, rickettsia: biology, symptoms, identification
Micromycetes morphology
Vegetative reproduction and asexual reproduction of micromycetes
Sexual reproduction: oospore, zygospore, ascus.
Sexual reproduction: basidium
Downy mildew on plants
Powdery mildew on plants
Smut and bunt on plants
Rust on plants
Other important disease on plants
Preventing and combating plant diseases
Summary Seminar -Colloquium

Bibliography

1. Coman I. și colab.: Elemente de standardizare în micologie și micotoxicologie, Ed. Performantica, 2007
2. Dumitraș, Lucreția, Seșan, Tatiana: Bolile plantelor industriale - prevenire și combatere. Ed. CERES, București, 1988.
3. Hatman, M. și colab.: Fitopatologie. E.D.P. București, 1989.
4. Iacob, Viorica: Fitopatologie. Ed. Ion Ionescu de la Brad, Iași, 2003.
5. Janse J.D.: Phytobacteriology –Principles and practice , Ed. CABI Publishing, USA, 2009.
6. Konopka Anderzej K.: Systems Biology- Principles, Methods and Concepts, Ed. CRC Press, U.S.A, 2007.
- 7.Șandru I.D.: Protejarea culturilor agricole cu ajutorul pesticidelor, Ed.Helicon, Timișoara, 1996.
8. Șesan Tatiana, Tănase C.: Ascomicete fitopatoge, Ed. Universității din București, București, 2011.
9. Șesan Tatiana, Tănase C.: Ciuperci anamorfe fitopatogene, Ed. Universității din București, București, 2007.
10. Tănase C., Micologie-manual de lucrări practice, Ed. Univ. “Al. Ioan Cuza”, Iași, 2002.
11. Tănase C., Mititiuc M.: Micologie, Ed. Univ. “Al. Ioan Cuza”, Iași, 2001.
12. Tănase C., Șesan Tatiana: Concepte actuale în taxonomia ciupercilor , Ed. Univ. “Al. Ioan Cuza”, Iași, 2006.
- 13.Ulea E.: Fitopatologie. Ed. Ion Ionescu de la Brad, Iași, 2003.

Evaluation

Evaluation form	Evaluation Methods	Percentage of the final grade
Exam	Oral examination	60%
Appreciation of the activity during the semester	Oral assessment during the semester, verification tests and final laboratory colloquium.	40%

Contact

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