



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **SELECETED TOPOCS IN PHYTOPATOLOGY - 71514**

*Last update 26-07-2016*

*HU Credits:* 4

*Degree/Cycle:* 1st degree (Bachelor)

*Responsible Department:* Agroecology & Plant Health

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* Hebrew

*Campus:* Rehovot

*Course/Module Coordinator:* Prof Oded Yarden

*Coordinator Email:* [yarden@mail.huji.ac.il](mailto:yarden@mail.huji.ac.il)

*Coordinator Office Hours:* by appointment

*Teaching Staff:*

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Prof Saul Burdman  
Prof Oded Yarden

Course/Module description:

*Dynamics, epidemiology and physiology of plant diseases in the field, in the greenhouse and in the orchard. Introduction to selected diseases and their causal agents, with emphasis on diseases caused by plant pathogenic fungi and bacteria. Study of phytopathological research and diagnostic methods.*

Course/Module aims:

*Expanding knowledge of the dynamics, epidemiology and physiology of plant diseases in greenhouses, open field and plantation.  
Understanding Diseases and their Causes with emphasis on fungal and bacterial diseases of plants. Learning Research Methods and Diagnosis phytopathology.*

Learning outcomes - On successful completion of this module, students should be able to:

*Knowledge of dynamics, epidemiology and physiology of plant diseases in greenhouses, open field and plantation.  
Familiarity with selected diseases and their Causes with an emphasis on fungal and bacterial diseases of plants.  
Experience in research methods and diagnostic phytopathology.*

Attendance requirements(%):

100

*Teaching arrangement and method of instruction: lectures, labs and tours*

Course/Module Content:

- 1. Introduction - plant diseases and their impact on agricultural production.*
- 2. Pea diseases.*
- 3. Diseases of spices.*
- 4. Wheat diseases.*
- 5. Implications of graft on plant diseases.*
- 6. Molecular basis of the interaction plant - pathogen.*
- 7. Plant diseases caused by bacterial Xanthomonas*
- 8. Tomato bacterial ulcer disease (Clavibacter).*
- 9. Great stain bacterial diseases of vegetables.*
- 10. Social implications of plant diseases.*
- 11. Laboratory diagnosis of plant pathogens on the basis of DNA.*

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12. Tour diseases grains and / or vegetables.
  13. Presentation and discussion of students' work (file operation).

Required Reading:

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Additional Reading Material:

The course will be divided into reference material and articles.

Grading Scheme:

Additional information: