



## *The Hebrew University of Jerusalem*

### *Syllabus*

## **ENVIRONMENTAL MICROBIOLOGY - 71977**

*Last update 08-03-2022*

*HU Credits:* 2

*Degree/Cycle:* 2nd degree (Master)

*Responsible Department:* Agroecology & Plant Health

*Academic year:* 0

*Semester:* 2nd Semester

*Teaching Languages:* English

*Campus:* Rehovot

*Course/Module Coordinator:* Eddie Cytryn

*Coordinator Email:* [eddie@volcani.agri.gov.il](mailto:eddie@volcani.agri.gov.il)

*Coordinator Office Hours:* by appointment

*Teaching Staff:*

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Dr. Eddie Cytryn

Course/Module description:

*Principals of microbial ecology and environmental microbiology*

Course/Module aims:

*Facilitate holistic understanding of how microbes influence (and are influenced by) the world as we know it*

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

*Broad understanding of microbial ecology and environmental microbiology principals and basic and molecular methods used to study microbes in the environment*

Attendance requirements(%):

*80%*

*Teaching arrangement and method of instruction: Frontal Lectures and Journal Clubs*

Course/Module Content:

*Understanding basic principles and methodologies used in microbial ecology and environmental microbiology, biogeochemical cycles (C, N, S), plant-microbe interactions, bioremediation, wastewater microbiology, microbes in extreme environments, "the arms race"- synthesis of and resistance to antibiotics*

Required Reading:

*Brock Biology of Microorganisms (Textbook)  
Scientific papers that will be distributed during the course.*

Additional Reading Material:

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Course/Module evaluation:

*End of year written/oral examination 80 %  
Presentation 0 %*

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*Participation in Tutorials 0 %*  
*Project work 0 %*  
*Assignments 0 %*  
*Reports 0 %*  
*Research project 0 %*  
*Quizzes 0 %*  
*Other 20 %*  
*Journal club*

*Additional information:*

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