האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

Advanced approaches and methods in plant ecology - 71911

Last update 09-02-2021

HU Credits: *3*

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

Responsible Department: *Plantsciences in Agriculture*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *English*

Campus: *Rehovot*

Course/Module Coordinator: *Dr. Efrat Sheffer*

Coordinator Email: *efrat.sheffer@mail.huji.ac.il*

Coordinator Office Hours: *Contact via email*

Teaching Staff:
Dr. Efrat Sheffer

Course/Module description:
The course will examine various aspects of research in plant ecology ranging from plant strategies at the level of the individual plant, through ecological processes that control plant population dynamics and plant communities, to processes at the level of the ecological system (ecosystem). Students will learn about the main research approaches and methodologies in the study of the ecology of plant populations and communities, with special focus on quantitative methods. The students will conduct a field survey of plants (as part of a field trip) and analyze the data (as part of computational laboratories and work reports). The goal of these assignments will be to expose the students to hands-on experience in research tools to evaluate how biotic and abiotic factors influence the structure, function, and dynamics of plant communities.

Course/Module aims:

Learning outcomes - On successful completion of this module, students should be able to:
Students will know how to distinguish between levels of organization and will understand the types of ecological questions asked for each of these levels and the research approaches developed for each level of biological organization.

Attendance requirements(%):

Teaching arrangement and method of instruction:

Course/Module Content:
1. Individual level - life forms, pollination and dispersal
2. Individual level - life history traits and strategies
3. Population ecology
4. Models of population demography in changing environments
5. The plant community - composition and structure, theories
6. The plant community - research methods, indices and analyses
6. Succession and disturbances
7.Plant-animal interactions

8. Plant-soil interactions
9. Human impacts and conservation

Required Reading:
A list of required and optional articles will be provided prior to each class

Additional Reading Material:

Course/Module evaluation:
End of year written/oral examination 0 %
Presentation 0 %
Participation in Tutorials 10 %
Project work 50 %
Assignments 40 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information: