האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

PLANT BIOLOGY - 71044

Last update 10-02-2021

HU Credits: 2

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Plant Science in Agriculture

Academic year: 0

Semester: 2nd Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Prof Naomi Ori

Coordinator Email: naomi.ori@mail.huji.ac.il

Coordinator Office Hours: by appointment

Teaching Staff:

Prof Naomi Ori,
Mr.

Course/Module description:
Principles in plant biology; with a focus on flowering plants. Specific topics include the life cycle of the plant, the types of tissues in the plant body, the principles of flexible growth and development in plants, the plant organs and their function. Topics in plant physiology will include water balance, principles in plant hormone biology and the roles of plant hormones.

Course/Module aims:
understanding basic principles of the plant body and its physiology

Learning outcomes - On successful completion of this module, students should be able to:
identification of basic plant organs, their basic structure and the relationship between structure and function.
to understand the unique characteristics of plants, including continuous growth
to understand how the plant reacts to internal and external changes

Attendance requirements(%):
none

Teaching arrangement and method of instruction: lectures and self reading

Course/Module Content:
1. introduction-Importance of studying plant biology, the importance of plants in the world and their position in the animal world, the general characteristics of plants and their uniqueness, general principles, life cycle of the plant, plant cell specificity.
2.Tissues: three major types of plant tissues: the epidermis, transport tissue and basal tissue. Continuity plant tissues throughout time and space. Primary and secondary growth.
3.Root: root structure and the major functions, primary and secondary growth.
4.Stem: stem structure and its major roles. Continuity between the stalk and root. Primary and secondary growth.
5.leaf:structure and
function.
6.plant life cycle. the flower and reproductive system
7.fruits and seeds. omportant plant families in agriculture

8.Plant water balance. osmosis, how does the water go through plant cell membranes. relative moisture and the cohesion theory. drought stress and the stomata dilemma.
9. phytohormones- major phytohormones and their role in growth and fuction of the plant
10.summery

Required Reading:
will be detailed during the course

Additional Reading Material:
1. Raven P.H., Evert R.F., Einhorn S.E., 1999. Biology of Plants. 7th/8th Edition
2. Taiz, L. and Zeiger, E. 1998 / 2002. Plant Physiology. 4th. / 5th Edition
.

Course/Module evaluation:
End of year written/oral examination 100 %
Presentation 0 %
Participation in Tutorials 0 %
Project work 0 %
Assignments 0 %
Reports 0 %
Research project 0 %
Quizzes 0 %
Other 0 %

Additional information:
-