

The Hebrew University of Jerusalem

Syllabus

INTRODUCTION TO PLANT SCIENCE-PLANT ANATOMY - 71048

Last update 01-01-2024

HU Credits: 5

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: Dr. Efrat Sheffer

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

Coordinator Office Hours: Upon request

Teaching Staff:

Prof Efrat Sheffer,
Dr. Idan Efroni,
Mr. amit sivan,
Mr. eran dagan,
Ms. may nir,
Ms. Orly Lavie,
Mr. Alon levinzon

Course/Module description:

The course will cover the various plant tissues, their development, cellular compositions and their role in adaptation to different environments.

Course/Module aims:

To learn the anatomy and morphology of seed plants.

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

The students will be able to identify plants by the family characteristics.
Distinguish between the different cells that compose the plant tissues.
Distinguish and identify modifications of plant tissues to different environmental conditions.
Operate microscopes and binoculars.
Generate preparations from a plant tissue.
Use preparation to Analyze the characteristic of a plant tissue.
Observe plant tissue and report the observations with schematic drawing and proper botanical terms and language.

Attendance requirements(%):

100% in labs

Teaching arrangement and method of instruction: Lecture & Lab

Course/Module Content:

The seed and embryo; Germination; Meristems and cellular taxonomy; Plant tissues; Transport and storage. Roots structure and anatomy. Shoot morphology and anatomy. Modified plant organs. Anatomical and morphological adaptations.

Required Reading:

Introduction to plant science – lab guide

Additional Reading Material:

Biology of Plants - Raven, P.H., Evert, R.E. and Eichhorn S. H. –, 6th or 7th Ed

Esau, K. - Anatomy of Seed Plants – Wiley, 2nd edition.

Fahn, A. – Plant Anatomy – Pergamon Press, 2nd 1974; 3rd 1982.

Grading Scheme:

Written / Oral / Practical Exam 55 %

*Submission assignments during the semester: Exercises / Essays / Audits / Reports
/ Forum / Simulation / others 20 %*

Mid-terms exams 15 %

Personal Guide / Tutor / Team Evaluation 10 %

Additional information:

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