

The Hebrew University of Jerusalem

Syllabus

Molecular Biology and Biotechnology of Plants - 88843

Last update 27-10-2019

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Genetics

Academic year: 0

Semester: 1st Semester

Teaching Languages: English and Hebrew

Campus: E. Safra

Course/Module Coordinator: Prof. Joseph Hirschberg

Coordinator Email: hirschu@mail.huji.ac.il

Coordinator Office Hours: Upon appointment

Teaching Staff:

Prof Joseph Hirschberg
Prof Rachel Green
Prof Oren Osterseizer
Dr. Tamar Avin Wittenberg

Course/Module description:

lectures and discussions on selected topics in plant biology and biotechnology

Course/Module aims:

To highlight cutting-edge scientific topics in plant biology

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

The students will be informed about the most advanced scientific techniques in plant biology

Attendance requirements(%):

100

Teaching arrangement and method of instruction: Lectures, proseminars and discussions

Course/Module Content:

Plant Biotechnology (transformation, genome editing, unique applications); Plant metabolomics; Plant source-sink relationship; Fruit development (genetic and molecular regulation; ripening (ethylene in climacteric) secondary metabolism; Plant Organellar genomes: Structure, Function & Regulation of Gene expression, Future Biotechnological implications; Rhythms (Circadian, annual and multiannual rhythms, mechanisms and significance); Roots (Development, the rhizosphere and biotic competition).

Required Reading:

according to instructions

Additional Reading Material:

Grading Scheme:

Additional information: