



The Hebrew University of Jerusalem

Syllabus

POST-HARVEST PHYSIOLOGY AND PATHOLOGY - 71446

Last update 10-09-2024

HU Credits: 3.5

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Plant Science in Agriculture

Academic year: 0

Semester: 1st Semester

Teaching Languages: Hebrew

Campus: Rehovot

Course/Module Coordinator: Prof. Elazar (Eli) Fallik

Coordinator Email: efallik@volcani.agri.gov.il

Coordinator Office Hours: All the time

Teaching Staff:

Prof. Dov Prusky,
Prof. Elazar Fallik,
Dr. Carmit ziv

Course/Module description:

Physiological, pathological and technological aspects associated with storage of fresh perishable agricultural produce. Studying, at the physiological and molecular level, ripening and aging processes occurring in fruits, leafy-vegetables, bulbs and roots during storage. Learning the post harvest decay causing pathogens, the molecular basis of their pathogenic mechanisms. Resistance of fresh produce to pathogens and its control mechanism. Induction of the resistance by physical, chemical and biological means. In the lab: learning the indicators for the determining of harvest time and of the stage of ripening. Identifying post harvest decay causing pathogens, visits to packing-houses commercial storage facilities and the export terminal.

Course/Module aims:

Studying physiological, pathological and sensorial aspects related to postharvest of fresh produce

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

To understand the problems that are related to quality maintenance of harvested produce after prolonged storage and how to extend storability and shelf life of the fresh produce

Attendance requirements(%):

80% in the lectures and 100% in the labs and field trips

Teaching arrangement and method of instruction: Lectures, labs, presentation assignment and field trips

Course/Module Content:

The course content will be given at the beginning of the course, including the lab's subjects (depends upon several factors, such weather, harvest, etc)

Required Reading:

Is given before each lecture and lab thru the students mail

Additional Reading Material:

Is given before each lecture and lab

Grading Scheme:

Written Exam % 80

Essay / Project / Final Assignment / Home Exam / Referat 10 %

Presentation / Poster Presentation / Lecture/ Seminar / Pro-seminar / Research proposal 10 %

Additional information:

The submission exercise for the conclusion of the labs will be held in pairs and will include a short writing task for submission as well as a presentation in TED format (presenting the topic in 5 minutes using a presentation).