



The Hebrew University of Jerusalem

Syllabus

BASIC WORKSHOP IN PRACTICAL MICROSCOPY - 71198

Last update 23-09-2019

HU Credits: 3

Degree/Cycle: 2nd degree (Master)

Responsible Department: Animal & Veterinary Science

Academic year: 0

Semester: 2nd Semester

Teaching Languages: English

Campus: Rehovot

Course/Module Coordinator: Dr. Einat Zelinger
Prof. Dalit Sela-Donenfeld

Coordinator Email: einat.zelinger@mail.huji.ac.il

Coordinator Office Hours:

Teaching Staff:

Prof Dalit Sela-Donenfeld
Dr.

Course/Module description:

One week long workshop combining theoretical and practical knowledge on light, confocal and electron microscopy.

The workshop will combine theoretical lectures on microscopy, image analysis and sample preparation, together with practical microscopy work.

Sample will be of plant and animal origin. Samples will be analyzed by testing multiple preparation protocols, incubation periods, staining and type of selected microscopes.

A final meeting will be held in the following week in which students will present and discuss their projects and tasks.

Course/Module aims:

Basic Knowledge on light and electron microscopy together with training in sample preparation and microscope operation.

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

On successful completion of the workshop students should be able to select the optimal sample type and to design the preparation protocol based on their scientific question.

In addition, students will acquire theoretical knowledge on microscopy and will be able to independently operate most of the microscopes they will work on.

Moreover, students will learn to critically examine imaging results, to analyse data in designated software as well as to prepare images for publication.

Attendance requirements(%):

100%

Teaching arrangement and method of instruction: Practical lab and theoretical lectures, student's task and project presentation

Course/Module Content:

Introduction to light and electron microscopy

Required Reading:

Will be given before and during the course

Additional Reading Material:

Course/Module evaluation:

End of year written/oral examination 0 %

Presentation 20 %

Participation in Tutorials 80 %

Project work 0 %

Assignments 0 %

Reports 0 %

Research project 0 %

Quizzes 0 %

Other 0 %

Additional information:

Limited to 16 students.

Deadline for course registration: Monday 4/11/19, at 19:00.

Acceptance is based on an evaluation committee and based upon:

- 1. Year of the degree (Priority will be given to PhD/MSc students at beginning stages).*
- 2. A document of half a page long indicating the significance of the workshop to their research.*
- 3. Participation of students from all Faculty units.*

Workshop dates:

9/8/20-13/8/20 0900:-1700.

A summary meeting

20.8.20