



Full Syllabus



Course Title

Methods in Molecular and Cell Biology

Lecturer

Adi Barzel, Lior Mayo, Uri Ashery and Gerardo Lederkremer (coordinator)

Semester

First Semester (aleph)

Course requirements

Cell biology, Molecular biology and biotechnology

Final grade components

Final written exam: 70%. Optional assignment: 30%

Course schedule

Class no. / Date	Subject and Requirements (assignments, reading materials, tasks, etc.)
21/10	PCR, qPCR, ddPCR and cloning - (Barzel)
28/10	Sanger Sequencing and NGS - (Barzel)
4/11	Genome engineering and genome editing - (Barzel)
11/11	Exercise - (Barzel)
18/11	Pulse-chase analysis, western blotting, immunoprecipitation – (Lederkremer)
25/11	Protein-protein interactions - (Lederkremer)
2/12	Protein complexes, Separation of protein complexes and organelles - (Lederkremer)
9/12	Exercise - (Lederkremer)
16/12	Basic fluorescence principles, FRAP, FRET - (Ashery)
23/12	Super resolution microscopy, TIRF - (Ashery)
30/12	Single molecule correlation microscopy + Exercise - (Ashery)
6/1	FACS - (Mayo)
13/1	FACS + Exercise - (Mayo)

Required course reading

Optional course reading

Comments