האוניברסיטה העברית בירושלים
THE HEBREW UNIVERSITY OF JERUSALEM

The Hebrew University of Jerusalem

Syllabus

ORGANIC CHEM LAB FOR CHEM & BIO COMBINED PROGRAM - 69321

Last update 01-04-2024

HU Credits: *3*

Degree/Cycle: *1st degree (Bachelor)*

Responsible Department: *Chemistry*

Academic year: *0*

Semester: *2nd Semester*

Teaching Languages: *Hebrew*

Campus: *E. Safra*

Course/Module Coordinator: *Dr. Zackaria Nairoukh*

Coordinator Email: *z.nairoukh@mail.huji.ac.il*

Coordinator Office Hours: *By appointment.*

Teaching Staff:
Prof Mattan Hurevich,
Mr. Mohamed Agbaria,
Ms. Tasneem Rass,
Mr. Yuval Rahav,
Ms. Nicole Hanania,
Dr. Zackaria Nairoukh,
Ms. Nwar Agbaria

Course/Module description:
A shortened version of the course "Organic Chemistry Lab" (69314), which is designated for the chemistry & biology combined program students.

Includes basic techniques of organic synthesis. Extraction, crystallization, distillation, sublimation, chromatographic separation, and spectroscopic methods. Synthesis: esterification, hydrolysis, addition and elimination reactions, aldol reaction, Grignard reaction.

Course/Module aims:
To get acquainted with the basic techniques in experimental organic chemistry.

The primary goal of this course is to foster independence in safe implementation of basic experimental procedures to achieve a stated objective. Supporting this are many other goals including meticulous recordkeeping in a laboratory notebook and of spectral data analysis .

Learning outcomes - On successful completion of this module, students should be able to:
to synthesize and purify a simple organic compound.

to follow a written procedure in organic chemistry synthesis.
To document the experimental process
To process, analyze and discuss experimental results including spectroscopic analysis.

Attendance requirements(%):
100%

Teaching arrangement and method of instruction: Laboratory.

Course/Module Content:

Simple distillation, reflux, recrystallization, sublimation, chromatographic separation

Required Reading:

Background, instructions and suggested reading will appear in the course website. In addition, It is imperative to review the subject of nuclear magnetic resonance (NMR) as taught in organic chemistry B course. This entails thoroughly reviewing recorded lectures, tergul, and completing worksheets.

Additional Reading Material:

Any book on experimental organic chemistry (e.g. the books by Pavia, Roberts, Vogel, etc)

Grading Scheme:

Written / Oral / Practical Exam 90 %
Essay / Project / Final Assignment / Home Exam / Referat 10 %

Additional information:

Shortened Laboratory Course – 6 hours/5 weeks.

Evaluation and grading criteria will be described to the students in the beginning of the course.