



## *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](mailto:z.nairoukh@mail.huji.ac.il)

Coordinator Office Hours: By appointment.

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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.

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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.*