

The Hebrew University of Jerusalem

Syllabus

ORGANIC CHEMISTRY A - 69128

Last update 15-09-2022

<u>HU Credits:</u> 5

Degree/Cycle: 1st degree (Bachelor)

Responsible Department: Chemistry

<u>Academic year:</u> 0

Semester: 2nd Semester

<u>Teaching Languages:</u> Hebrew

<u>Campus:</u> E. Safra

Course/Module Coordinator: Dr. Ahmad Masarwa

Coordinator Email: Ahmad.Masarwa1@mail.huji.ac.il

Coordinator Office Hours: upon request

Teaching Staff:

Dr. Ahmad Masarwa, Mr. Shachar Bressler, Mr. Nadim Eghbarieh, Mr. Yinon Deree

Course/Module description:

Introductory course of Organic Chemistry: basic concepts and terminology Electronic structure and bonding, organic compounds, nomencalture, addition/substitution/elimination reactions, stereochemistry and chemical reactivity.

<u>Course/Module aims:</u> See Learning Outcomes.

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

Identify main groups of organic compounds.

Understand and use the common terminology and nomenclature in organic chemistry.

Describe and identify substitution, addition, elimination and rearrangement reactions, as well as simple syntheses.

Familiarize with the basics of stereochemistry and apply them in simple systems.

Attendance requirements(%):

Teaching arrangement and method of instruction: Lecture and Exercise.

Course/Module Content:

- 1. Brief introduction אם Organic chemistry
- 2. Families of carbon compounds; functional groups
- 3. Nomenclature and conformations

4. Stereochemistry

- 6. Nucleophilic substitution and elimination reactions of alkyl halides
- 7. Alkenes and alkynes, addition reactions.
- 8. Radical reactions.

<u>Required Reading:</u> Organic Chemistry, 11th Edition International Student Version T.W. Graham Solomons ISBN: 978-1-118-32379-3 chapters 1-8, 10

Bonding and molecular structure

Acids and bases

Additional Reading Material:

<u>Course/Module evaluation:</u> End of year written/oral examination 100 % Presentation 0 % Participation in Tutorials 0 % Project work 0 % Assignments 0 % Reports 0 % Research project 0 % Quizzes 0 % Other 0 %

Additional information: