

SYLLABUS

1. Course title:

ORGANIC CHEMISTRY I

2. Code:**3. Cycle of study:****4. ECTS credits:****5. Type of course:** Mandatory Elective**6. Prerequisites:****7. Class restrictions:****8. Duration / semester:****9. Weekly contact hours:**

9.1. Lectures:

9.2. Seminars:

9.3. Laboratory/Practice classes:

10. Faculty:

Faculty of Pharmacy

11. Department/study program:

Pharmacy (integrated academic study I and II cycle)

12. Lecturer:

Dr. sc. Snježana Marić, associate professor

13. Lecturer's e-mail:

snjezana.maric@untz.ba

14. Web site:

www.frmf.untz.ba

15. Course aims:

Acquaintance of students with the structure of organic compounds, types of reactions characteristic for the corresponding functional groups and intermediate products that occur in organic chemistry, with addition and substitution reactions on the carbonyl group. In particular, students will learn about cyclic, bicyclic and heterocyclic compounds, structures with oxygen, nitrogen and sulfur. This program will enable students to follow the listed compulsory and optional subjects more easily.

16. Learning outcomes:**17. Course content:**

Development of organic chemistry
 Formation of molecules, atomic structure, bonding, covalent bonding, formal charges, ionic bonding, representative molecules, drawing a three-dimensional structure
 Simple hydrocarbon and Properties of hydrocarbons, alkenes, structure of isomers, Cycloalkanes, structures and formulas, ring stress
 Importance of organic chemistry
 Atomic orbitals and hybridization in organic chemistry
 Atomic sp , sp^2 , sp^3 hybridizations
 Bonds in organic molecules
 Bonds in alkanes, alkenes and alkynes
 Chemical formulas of organic compounds
 Molecular structures, expanded and condensed
 Functional groups in organic compounds
 Functional groups with C-C, π -bonds
 Functional groups with halogens
 Functional groups with oxygen
 Functional groups with nitrogen
 Alkyl groups

18. Learning methods:

Lectures, laboratory exercises (L), colloquiums, consultations.

19. Assessment methods:

The exam is in written (Test I and II) and oral form (the final). The final grade is formed based on the criteria presented in the table:

Knowledge check - criteria

Criterion	Max number of points	Points for passing
Regularity of class attendance	10	5
Lab exercises engagement	10	7
Colloquiums	10	6
Tests during the course:		
Test I (written)	20	11
Test II (written)	20	11
Final exam (oral)	30	15
Total	100	55

20. Assessment components:

< 55	5	F
55 – 64	6	E
65 – 74	7	D
75 – 84	8	C
85– 94	9	B
95 - 100	10	A

21. Required reading list:

1. Organic chemistry (translation), Pine S.H., Školska knjiga Zagreb, 1994
2. Experimental organic chemistry with theoretical foundations, J.Suljagić, Z. Ademović, S. Marić, InScan 2017
3. Nomenclature of organic compounds, S. Marić, E. Horozic, J.Suljagić, InScan 2019

22. Web sources:**23. Applicable starting from the academic year:**

2018/2019

24. Adopted in the Faculty/Academy session:

17.11.2025.