SYLLABUS

1. Course title:

ORGANIC CHEMISTRY II

2. Code:

3. Cycle of study:

1

4. ECTS credits:

6

5. Type of course:

(●) Mandatory ( ) Elective

6. Prerequisites:

7. Class restrictions:

8. Duration / semester:

1 4

9. Weekly contact hours:

9.1. Lectures: 3

9.2. Seminars: 0

9.3. Laboratory/Practice classes: 2

10. Faculty:

Faculty of Pharmacy

11. Department/study program:

Pharmacy (integrated academic study I and II cycle)

12. Lecturer:

dr. sc. Majda Srabovic, full professor

13. Lecturer's e-mail:

majda.srabovic@untz.ba

14. Web site:

www.frmf.untz.ba

15. Course aims:

The goal of this course is for the student to master the basic principles and basic knowledge in the field of heterocyclic compounds and the chemistry of natural compounds, in order to understand the profession being studied. The acquired knowledge will be useful to students when solving specific problems from pharmaceutical disciplines, as well as problems related to planning and carrying out the synthesis of bioactive compounds.

16. Learning outcomes:

After fulfilling the obligations, students will be able to identify, analyze and solve problems of varying complexity, individually or as a team, use professional literature from the scientific field of organic chemistry, follow the teaching of subjects that include the structure, properties, preparation and reactions of various organic compounds.

17. Course content:

1. Amines and nitrogen related compounds
2. Heterocyclic compounds, representatives
3. Heterocyclic compounds with a five-membered ring
4. Carbohydrates, representatives, monosaccharides
5. Polysaccharides
6. Lipids, division, fats and oils
7. Phospholipids, terpenes
8. Amino acids, peptides, proteins
9. Alkaloids, division, the most important representatives
10. Steroids, division
11. Steroids, reactions
12. Polyphenol compounds

18. Learning methods:

Lectures - through interactive lectures, students will be introduced to the basic terms and principles of behavior of various heterocyclic and natural compounds, and through practical examples and problems, will be more familiar with the reaction mechanisms.
Experimental exercises - through specific experiments, students will demonstrate the level of acquired knowledge through lectures, and acquire skills for practical and scientific-research work.
Consultations - through consultations, students can deepen the knowledge acquired in lectures.

19. Assessment methods:

Activity - for activity in lectures and exercises, the student can score 0-5 points.
Colloquium: colloquium consisting of theoretical foundations and performed experimental exercises. A student can obtain a maximum of 15 points on the colloquium, the minimum number of points the student must obtain is 5.
Written test of knowledge during the semester (Test I and II) - Test I and Test II include solving problem tasks. The maximum number of points on each test is 15.
The final exam - a maximum of 50 points can be achieved by testing knowledge.
In order to pass the course, the student must obtain a minimum of 55 points, of which a minimum of 25 points in the final exam.
The grade is based on the total number of points that the student earned by fulfilling pre-exam obligations and taking the exam, and according to the quality of acquired knowledge and skills. It contains a maximum of 100 points, and is determined according to the following scale:

Student obligations	Points
Attendance at lectures	0-5
Attendance at exercises	5-15
Test I	0-15
Test II	0-15
Final exam	25-50

20. Assessment components:

points	grade	
0-54	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:

K.Peter, C.Volhardt, Neil E.Schore, Organska hemija, Beograd, 2004.
M.Huremovic, M.Srabovic Z.Ademovic,E.Huseinovic, A.Taletovic,Hemija prirodnih organskih jedinjenja, Tuzla, 2017
M.Srabovic,M.Huremovic,M.Salihovic,Hemija heterocikličnih jedinjenja,2022

22. Web sources:

T.Aniszewski,Alkaloids Chemistry,Biology, Ecology and applications 2015(pdf)

23. Applicable starting from the academic year:

2018/2019

24. Adopted in the Faculty/Academy session:

17.11.2025.