SYLLABUS

1. Course title:

BIOCHEMISTRY IN PHARMACY

2. Code:

3. Cycle of study:

3

4. ECTS credits:

15

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

None

7. Class restrictions:

None

8. Duration / semester:

1 3.

9. Weekly contact hours:

9.1. Lectures: 2

9.2. Seminars: 0

9.3. Laboratory/Practice classes: 0

10. Faculty:

Faculty of Pharmacy

11. Department/study program:

Pharmaceutical Sciences

12. Lecturer:

dr. sc. Nahida Srabović, associate professor

13. Lecturer's e-mail:

nahida.srabovic@untz.ba

14. Web site:

www.frmf.untz.ba

15. Course aims:

Acquisition of current knowledge from various areas of Biochemistry.
Acquisition of scientific methods and procedures applied in biochemical research.

16. Learning outcomes:

Evaluation of scientific methodology and analysis of procedures applied in pharmaceutical biochemistry.

17. Course content:

Glycobiology and Glycoimmunology;
Oxidative stress in health and disease;
Biochemistry of cancer;
Biochemistry of neurodegenerative diseases;
Biochemistry of hereditary metabolic diseases;
Immunochemical methods in pharmacy;
Cell cultures in biochemical research;
Biochemistry of selected drug groups;
Pharmacogenomics;
New biochemical markers.

18. Learning methods:

Interactive lectures using multimedia tools and active discussion. Individual and group projects
Consultations.

19. Assessment methods:

Student knowledge assessment is carried out through pre-exam obligations and the final exam. Within the pre-exam obligations, students can earn points from activities in lectures, individual and group projects, and a test which students take in the 15th week of the semester. If students achieve at least 55 points during the pre-exam obligations, they gain the right to register for the final exam grade, which they take during regular examination periods. Students at the final and retake exams only take the parts of the exam for which they did not achieve the minimum required points during previous knowledge assessments.
The point value of the pre-exam obligations/knowledge assessment is:

	min - max
- activity in lectures,	5 - 10 points
- test,	40 - 70 points
- project,	10 - 20 points
TOTAL,	55 - 100 points

20. Assessment components:

10 (A) -95-100- outstanding performance without errors or with minor errors
9 (B) - 85-94-above the average, with some errors
8 (C) - 75-84- average, with noticeable errors
7 (D) - 65-74 generally good, but with significant shortcomings
6 (E) - 55-64- meets the minimum criteria
5 (F, FX) <55- does not meet the minimum criteria

21. Required reading list:

Lieberman M. (2008) Marks' Basic Biochemistry – A Clinical Approach. Belgrade;
Srabović N. et al. (2020) Biochemical Basis of Hereditary Metabolic Disorders Tuzla;
Softić A. et al. (2021) Cell Cultures in Biochemical Research; Tuzla;
Srabović N. et al. (2025) Carbohydrates and Fats as Metabolic Fuels in Health and Disease. Tuzla.

22. Web sources:

https://pubmed.ncbi.nlm.nih.gov/

23. Applicable starting from the academic year:

2012/13

24. Adopted in the Faculty/Academy session:

17.11.25.