SYLLABUS

1. Course title:

BIOCHEMISTRY OF DRUGS

2. Code:

3. Cycle of study:

1

4. ECTS credits:

4

5. Type of course:

(●) Mandatory ( ) Elective

6. Prerequisites:

none

7. Class restrictions:

none

8. Duration / semester:

1 1

9. Weekly contact hours:

9.1. Lectures:	2
9.2. Seminars:	0
9.3. Laboratory/Practice classes:	1

10. Faculty:

Faculty of Pharmacy

11. Department/study program:

Pharmacy (integrated 1st and 2nd cycle)

12. Lecturer:

dr sc Zlata Mujagić, full professor

13. Lecturer's e-mail:

zlata.mujagic@untz.ba

14. Web site:

www.pharmacy.untz.ba

15. Course aims:

Acquiring knowledge about biochemical bases of:
ADME concept; Physicochemical properties of drugs; Transmembrane drug transport; Interactions between drugs and macromolecules; Biochemical bases of drug action: general and special aspect; Drug biotransformation: I phase reactions, and II phase reactions; Pharmacogenomics (pharmacogenetics) and personalised pharmacy and medicine; Metabolic interactions: drug-drug, drug-chemical substance, drug-food, drug-alcohol (ethanol).

16. Learning outcomes:

It is expected that students accept and understand biochemical bases of ADME concept; transmembrane drug transport; Interactions between drugs and macromolecules; drug action: general and special aspect; Drug biotransformation: I phase reactions, and II phase reactions; pharmacogenomics (pharmacogenetics) and personalised pharmacy and medicine; metabolic interactions: drug-drug, drug-chemical substance, drug-food, drug-alcohol (ethanol).
In Clinical biochemical laboratory, acquiring knowledge and skills about principles of working and analytical methods, therapeutic drug monitoring and quality control.

17. Course content:

ADME concept; Transmembrane drug transport; Interactions between drugs and macromolecules; Drug action: general and special aspect; Drug biotransformation: I phase reactions, and II phase reactions; Pharmacogenomics (pharmacogenetics) and personalized pharmacy and medicine; Metabolic interactions: drug-drug, drug-chemical substance, drug-food, drug-alcohol (ethanol); Therapeutic drug monitoring.

18. Learning methods:

Lectures, practical (experimental work in laboratory), seminars (individual or group) and consultations.
Authorized lectures will be available for students in digital form. Practical results and reports will be noted in the Practicum (Handbook) for Biochemistry.

19. Assessment methods:

Colloquial exams for practical knowledge; partial and final exam (oral or written form) for theoretical knowledge; seminars (individual or group).
Final point score is formed in a cumulative way (sum of points from all forms of knowledge checking and student activity) with the point range: 54-100 cumulative points.
If it is officially documented that a student cheated on the exam, the next exam term will be forbidden to them.

20. Assessment components:

Attendance and activity during lectures:	5 points
Attendance and activity during practical:	5 points
Colloquial I :	20 points
Test I (partial exam I):	35 points
Test II (partial exam II):	35 points

21. Required reading list:

1. Mujagić Z, Mujagić H. Biohemija lijekova. Zlata Mujagić i Hamza Mujagić, Tuzla, 2012.
2. Brunton L, Chabner B, Knollman B (Eds.). Goodman & Gilman's The Pharmacological Basis of Therapeutics, 12th edition., McGrawHill Medical, New York, 2011.
3. Lieberman M, Marks A, Smith C. Marks' Basic Medical Biochemistry-A Clinical approach. Wolters Kluwer/ Lippincott Williams&Wilkins, Philadelphia, 2009.
4. Mujagić Z, Mujagić H. Biohemizmi stanične transdukcije signala (Biochemistry of cell signal transduction). Zlata Mujagić i Hamza Mujagić, Tuzla, 2012.
5. Drug-Drug Interactions: Scientific and Regulatory Perspectives. Izd. Lee A. P., Academic Press, New York 1999.
6. Lejla Begić, Selma Berbić, Zlata Mujagić, Sadik Mehikić. Praktikum iz biohemije sa teoretskim osnovama, (Practicum for Biochemistry with theoretical bases), PrintCom, Tuzla, 2004.

22. Web sources:

23. Applicable starting from the academic year:

2012/13.

24. Adopted in the Faculty/Academy session: