SYLLABUS

1. Course title:

Physical pharmacy

2. Code:

3. Cycle of study:

1

4. ECTS credits:

5

5. Type of course:

(•) Mandatory ( ) Elective

6. Prerequisites:

no course prerequisites

7. Class restrictions:

none

8. Duration / semester:

1 4

9. Weekly contact hours:

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

10. Faculty:

Faculty of pharmacy

11. Department/study program:

Pharmacy (integrated 1st and 2nd cycle)

12. Lecturer:

Amra Odobasic, associate professor

13. Lecturer's e-mail:

amra.odobasic@untz.ba

14. Web site:

www.farmacy.untz.ba

15. Course aims:

- Understanding surface phenomena and their significance in drug formulation, as well as the role of water in tabletting and its impact on the stability of various pharmaceutical forms through the study of phase diagrams.

16. Learning outcomes:

- At the end of the semester, successful students, who continued to perform their duties throughout the academic year, will be trained to:
- Creates a clearer picture of the role of surface phenomena in drug formulation
- Through practical exercises that are conceived as experimental, they are introduced to acquire autonomy in solving practical problems.

17. Course content:

Introduction to Physical Pharmacy. Firmness - Structure, Forms and Outline.
Polymorphism and solid crystal state. Crystalline hydrates / solvates. Solid drug release. Crystallization and factors affecting the crystalline form. Modification of the crystalline form. Crystallization and formation of polymorphic forms. Methods of crystallization. Solubility and solubility. Solubility of weak electrolytes and ampholytes. Medication breakdown.Termodynamic properties of drugs. Ionization. Ionized drugs activity. Osmotic properties of the drug. Transport processes. Drug dispersion in polymeric drug carriers. Thermodynamic aspect of pharmacy. Chemical degradation. Factors Affecting Stability in Liquid Solution. Boundaries on boundary surfaces. Discard and wipe. Classification of hydrophilic - lipophilic systems. Drug Resurfacing Properties. Adsorption. Adsorption isotherms. Colloidal emulsions, suspensions. Characteristics of colloid systems and colloid stability.

18. Learning methods:

- lectures with students' active participation and discussion,
- seminars,
- practical laboratory work.

19. Assessment methods:

During the semester the student will have two tests and a final exam. Each test carries 25 points.
The final exam is 30 points. Final exams can be accessed by students who have accumulated at least 25 points during preliminary assignments. The remaining points are the students through the entrance and exit queues and attendance and activity in the classroom.

20. Assessment components:

The final grade is based on the total number of points before and during the exam. The maximum score is 100 points, and it is calculated according to the following:

Students' tasks	Points
Attendance	10
Laboratory work	10
Colloquia	20
Tests	40
Final examination	20

21. Required reading list:

1.Amra Odobašić: Interna skripta iz Fizikalne farmacije, 2017 godina
2. P.W.Atkins : Physical Chemistry, Oxford University, 2007.god.
3. Paul Monk: Physical Chemistry – Understanding our Chemical Word, John Wiley& Sons,Ltd, 2007.god.

22. Web sources:

23. Applicable starting from the academic year:

2012/2013

24. Adopted in the Faculty/Academy session: