SYLLABUS

1. Course title:

PHARMACOLOGY IN LIVESTOCK

2. Code:

3. Cycle of study:

1

4. ECTS credits:

3

5. Type of course:

○ Mandatory ◉ Elective

6. Prerequisites:

No prerequisites

7. Class restrictions:

No class restrictions

8. Duration / semester:

1 8

9. Weekly contact hours:

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

10. Faculty:

Faculty of Technology

11. Department/study program:

Agronomy

12. Lecturer:

Zlata Mujagić, full professor

13. Lecturer's e-mail:

zlata.mujagic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

Acquiring knowledge on the biochemical basis of action and biotransformation, as well as on the structure and pharmaceutical forms of medicines applied in cattle breeding; On the principles of analysis and control of residues of verinary and other pharmacologically active substances in food of animal origin (milk and meat of cattle); On the biochemical basis of some diseases in livestock farming primarily from the aspect of their impact on human health.

16. Learning outcomes:

The student is expected to acquire knowledge and understand the basics of biochemistry of medicines and diseases that are significant in cattle breeding; Structures, analyzes, controls, and pharmaceutical forms of medicines in cattle breeding.
In the laboratory (for biochemistry, pharmaceutical chemistry, pharmaceutical technology), the student is expected to master the knowledge, skills and methods of residual drug analysis in food of animal origin, as well as their structure and pharmaceutical form adapted to cattle breeding.

17. Course content:

Introduction to biochemistry of medicines and diseases of importance in cattle breeding.
Drugs for the treatment of contagious diseases (anthelmintics, antibiotics, sulfonamides and coccidiostats): Benzimidazoles, Imidotiazoles, Salicyylanilides, Macrocyclic lactones, Antibiotics, β-lactam antibiotics, Cephalosporins, Aminoglycoside Antibiotics, Tetracyclines, Macrolid Antibiotics, Polypeptide Antibiotics, Kinolones, Nitrofurans, Sulfonamides - structure, biochemistry of action, biotransformation, pharmaceutical form, application.
Ban on the use of antibiotics in animal feed in the EU.
Hormones and hormone active substances - structure, biochemistry of action, biotransformation, pharmaceutical form, application.
Residues of veterinarian drugs in foods of animal origin.
Pharmaceutical forms of veterinary medicines applicable to livestock production. Biochemical basis of some diseases in cattle breeding - aspect of their influence on human health: cow madness; prion diseases.

18. Learning methods:

The most important learning methods in the course are:
- Lectures with the use of multimedia resources, active learning techniques and with active participation and discussion of students;
- Laboratory exercises;
- Preparation and presentation of group and individual seminar papers.
- Consultations.

The lecture material will be available to students. The results with the report on the exercises are entered in the Practice notebook at the foreseen location.

19. Assessment methods:

Within a series of experimental exercises, one colloquium will be held, with a theme related to the theoretical basis of the exercises and the experimental procedure itself. The colloquium is taken after completion of exercise program.
Testing of knowledge will be done through partial and final, corrective and additional corrective exams. After completing the theoretical part of the course, the students write a test (first interviews), which includes the topics covered in the lectures. The test is taken by all students in the course at the same time thereby achieving uniformity of the level of knowledge that is being tested, as well as the conditions under which the student takes the exam.
As part of the prerequisites, students may prepare individual or group seminar work that will cover a specific topic from the content of the subject and it is separately valorised. Seminar in writing is submitted to the subject teacher for review and evaluation, and then may be presented orally. In the preparation and presentation of group seminar work all the students of the group participate, whose participation is valorized individually.
The final exam is written and / or oral. All students have the right to go to the final exam.
Checks on all forms of knowledge are recognized as a cumulative test if the result is positive after each individual check and is at least 50% of the total of the predicted and / or required knowledge and skills.
In order to pass the course, a student must have at least 54 cumulative points.
If it is proven that the student copied during the assessment exam, he / she will not be able to go to the next examination term.

20. Assessment components:

The assessment of the exam is based on the total number of points the student has obtained by fulfilling the pre-requisites and passing the exam, containing a maximum of 100 points and is determined according to the following scale:
Student Obligations / maximum number of points
Presence and activity in class 5
Presence and activity at exercises 5
Colloquium I 20
Test I 70

21. Required reading list:

1. Mujagić Z, Mujagić H. Biohemija lijekova. Zlata Mujagić i Hamza Mujagić, Tuzla, 2012.
2. Begić L, Berbić S, Mujagić Z, Mehikić S. Praktikum iz biohemije sa teoretskim osnovama, PrintCom, Tuzla, 2004.

22. Web sources:

23. Applicable starting from the academic year:

2016/2017

24. Adopted in the Faculty/Academy session: