

SYLLABUS

1. Course title:

TECHNOLOGY OF MILK PRODUCTION AND PROCESSING

2. Code:**3. Cycle of study:**

1

4. ECTS credits:

8

5. Type of course: Mandatory Elective**6. Prerequisites:**

No prerequisites

7. Class restrictions:

No class restrictions

8. Duration / semester:

1

6

9. Weekly contact hours:

9.1. Lectures:

4

9.2. Seminars:

0

9.3. Laboratory/Practice classes:

2

10. Faculty:

Faculty of Technology

11. Department/study program:

Agronomy

12. Lecturer:

Milica Vilušić, associate professor

13. Lecturer's e-mail:

milica.vilusic@untz.ba

14. Web site:

www.tf.untz.ba

15. Course aims:

- Analysis, evaluation and management in obtaining hygienic and healthy milk
- Knowledge of factors of chemical, biochemical and microbiological changes as well as importance of hygiene application and quality control in milk production and processing
- Participation of basic professional knowledge in the field of primary production and processing of milk
- Solving problems in the domain of milk production and processing technology

16. Learning outcomes:

At the end of the semester/course, successful students, who have been continuously carrying out their duties during the entire teaching period, will be trained to:

- define and explain the basic characteristics of milk and state its chemical composition
- write basic hygiene and sanitation maintenance measures as necessary measures to ensure quality in milk and dairy production
- identify key parameters of effective milk production and timely identify possible risks
- resolve problems in the domain of milk production technology and processing

17. Course content:

Detailly introducing students with content of the subject, aim, teaching methods, exam methods, literature, etc. Milk composition, meaning and nutritional properties. Mammary gland - udder. Milking. Process with milk after milking. Washing and disinfection of milking equipment and utensils. Quality control of raw milk. Change of basic milk ingredients. Heat-treated milk. Fermented dairy products (fermentation type, a starter cultures). Creams (species, fermentation, starter cultures). Butter. Cheeses (types, classifications, processes of manufacture, the starter cultures). Concentrated and powdered milk. Ice cream and other dairy desserts. Modified milk and dairy products. Secondary products in the dairy industry.

18. Learning methods:

- Teaching with the use of multimedia resources, learning techniques, with active participation and discussion of students
- Laboratory / practical exercises (individual and group), and additional field trips (primary production and production plants)
- Consultations with the subject teacher and / or associate

19. Assessment methods:

Knowledge check will be done through two partial tests from the corresponding curricula, after the first half of the semester (first partial test T1) and at the end of the semester (second partial test T2). The individual test consists of 20 questions, and each question carries 1 point. All students take both tests on 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.

The final exam may be written and / or oral, depending on the number of points earned in the prerequisites. At the final exam, students who have won the required number of points can get a final grade. Students who have passed one partial test, will have the remaining part (non-passed part) on the final exam. Students who have not passed any partial test, on the final, or corrective or additional corrective exam, will take the entire exam, which contains the questions of both partial tests.

Students who have not passed the exam in the academic year when they first attended the course, will take the remaining test assignments under the current Act of the University of Tuzla.

Rating at the exam is based on the total number of points a student earned by completing pre-exam requirements (minimum 28 points) and final exam (minimum 26 points), and according to the quality of the acquired knowledge and skills, and contains a minimum of 54 points or a maximum of 100 points.

20. Assessment components:

The grading on the exam is based on the total number of points the student has obtained by fulfilling the prerequisites and passing the exam, and is determined according to the following scale:

Student obligations	Points (min-max)
- Attendance and activity at lectures and exercises	(3-5)
- Final colloquium at laboratory exercises	(3-5)
-Test 1	(11-20)
-Test 2	(11-20)
- Total prerequisites	(28-50)
- Final exam	(26-50)

21. Required reading list:

Havranek, J., Rupić, V. (2003):Mlijeko od farme do mljekare, Hrvatska mljekarska udruga, Zagreb.
Tratnik, Lj., Božanić, R. (2012):Mlijeko i mliječni proizvodi, Hrvatska mljekarska udruga, Zagreb.
i dr. literatura

22. Web sources:**23. Applicable starting from the academic year:**

2016/2017

24. Adopted in the Faculty/Academy session: