Course Unit Descriptor

Study Programme: ANIMAL SCIENCE

Course Unit Title: MILK PROCESSING TECHNOLOGY

Course Unit Code: 19ANM056

Name of Lecturer(s): PhD Ksenija Čobanović, Assistant professor

Type and Level of Studies: UNDERGRADUATE ACADEMIC STUDIES

Course Status (compulsory/elective): Elective

Semester (winter/summer): summer

Language of instruction: Serbian

Mode of course unit delivery (face-to-face/distance learning): face-to-face

Number of ECTS Allocated: 6

Prerequisites: MILK PRODUCTION

Course Aims:

An acquaintance of students with the technology of processing the milk into various dairy products, with biochemical and microbiological changes that occur in the production and storage of dairy products, as well as the importance of hygiene and control in the dairy industry.

Learning Outcomes:

The formation of experts with academic education, who possess the expanded knowledge necessary to understand the scientific basis of dairy production. The acquired knowledge provides the student with expertise for the independent management of milk production on the farm, in the agricultural advisory service and the like.

Syllabus:

Theory

Transporting milk from the farm to the dairy. Technological operations during the reception of milk. Technological processes in the production of pasteurized and sterilized milk. Fermented milk products. Sour cream. Butter. Ice cream. Cheeses - definition, basic technological stages in cheese production. Concentrated and dried dairy products.

Practice

- a) Laboratory exercises: Methods of analysis of milk and milk products. Sampling of dairy products for chemical and microbiological analysis (pasteurized and sterilized milk, fermented dairy products, cheeses, milk powder,...).
- b) Training exercises: Visiting dairies fermented milk products and cheese.

Required Reading:

- 1. Johnson, M., Law, B.A. (1999): The origins, development and basic operations of cheesemaking technology. Sheffield Academic Press, Sheffield.
- 2. Анка Поповић Врањеш (2015): Специјално сирарство. Универзитет у Новом Саду, Пољопривредни факултет.
- 3. Popović Vranješ, A., Trivunović, S., Boboš, S., Pejanović, R., Vlahović, B., Jajić, I., Pihler, I. (2014.): Proizvodnja, prerade i plasma mleka i autohtonih mlečnih proizvoda u AP Vojvodini. Univerzitet u Novom Sadu, Poljoprivredni fakultet.
- 4. Samardžija, D. (2015.): Fermentirana mlijeka. Hrvatska mljekarska udruga, Zagreb.
- 5. Tratnik, Lj., Božanić, R. (2012): Mlijeko i mliječni proizvodi. Hrvatska mljekarska udruga, Zagreb.

6. Царић, М., Милановић, С., Вуцеља, Д. (2000): Стандардне методе анализе млека и млечних производа. "Прометеј" Нови Сад.

Weekly Contact Hours: Lectures: 3 Practical work: 2

Teaching Methods:

Lectures, presentations, demonstrations, consultations, work in dairies and laboratories

Knowledge Assessment (maximum of 100 points):

| Pre-exam obligations | points | Final exam | points |
|----------------------|--------|--------------|--------|
| Active class | 10 | written exam | |
| participation | 10 | written exam | |
| Practical work | 10 | oral exam | 40 |
| Preliminary exam(s) | 20 | | |
| Seminar(s) | 20 | | |

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.