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**Course title / code: TECHNOLOGY OF CHEESES AND MILK PROTEIN CONCENTRATES / 03S10-TSIPB**

ECTS credit allocation (and other scores): 9

Semester: summer

Level of study: ISCED-6 - first-cycle program EQF-6

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 75h classes

Course coordinator/ Department and e-mail: dr hab. inż. Justyna Żulewska, prof. UWM; Department of Dairy Science and Quality Management; justyna.zulewska@uwm.edu.pl

Type of classes: classes

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## **SUBSTANTIVE CONTENT**

**CLASSES:** Preparation of raw material and pre-processing procedures and control of technological parameters during production processes. Production on a quarter-technical scale of maturing cheeses, cottage cheese, melted cheese. Technological process control including parameters of inter-operational procedures. Physico-chemical and organoleptic evaluation of the finished product.

Technology and technique of cheese production. Technology and technique in the production of cottage cheese. Technology and technique in the production of cheese and curd from all milk proteins. Production and characteristics of processed and pasteurised cheeses. Technology and technique in the production of protein preparations. Directions of whey processing.

**Learning purpose:** To impart knowledge on the preparation of raw materials in cheese-making technology, technology of ripened cheese, curd cheese, processed cheese and protein preparations. Acquisition of skills in the production of maturing and processed cheeses and in the production of acid curd and acid rennet cheeses. Acquisition of skills for operating cheese and curd production equipment on a quarter-technical scale. Acquisition of skills to take an active part in the process: production, decision-making in the actual running of the process and work in a team.

## **ON COMPLETION OF THE STUDY PROGRAMME THE GRADUATE WILL GAIN:**

**Knowledge:** student has knowledge of the principles of selecting parameters for individual technological procedures in the production process of cheeses and protein preparations; has knowledge of the technology of production of cheeses (rennet, acid, acid-rennet), processed cheeses and protein preparations; identifies defects in cheeses and protein preparations and is able to determine the cause of their occurrence and ways to prevention

**Skills:** student can select parameters of unit operations in technological processes, conditioning the achievement of a product of desired properties; can carry out the process of cheese and curd production on a quarter-technical scale and can evaluate the finished product.

**Social Competencies:** student demonstrates willingness to actively and collaboratively participate in the implementation of technological processes; develops awareness of the influence of technical and technological factors on the quality and durability of dairy products.

**Basic literature:**

Fox P.F., McSweeney P.L.H., Cogan T.M., Guinee T.P., "Cheese: Chemistry, Physics and Microbiology", wyd. Elsevier Ltd., 2004

**Supplementary literature**

1) Information, scientific articles and book connected with the course (domestic and foreign databases - ScienceDirect, ResearchGate etc.)