

Course title: Food Technology – Dairy Technology

ECTS credit allocation (and other scores): 3

Semester: spring

Level of study: ISCED-6 - first-cycle programmes (EQF-6)

Branch of science: Agricultural sciences

Language: English

Number of hours per semester: 30

Course coordinator/ Department and e-mail: dr hab. Inż. Katarzyna Kiełczewska/ Department of Dairy Science and Quality Management; kaka@uwm.edu.pl

Type of classes: classes

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#### Substantive content

CLASSES: Characteristics of composition, basic milk components and physico-chemical properties of raw milk. Technological processes in dairy industry. Technology of drinking milk, fermented dairy beverages, milk concentrates (evaporated milk, milk powder), butter and ripening cheeses. Procedures of evaluation of milk and dairy products.

Learning purpose: Introduction to manufacture of dairy products and factors affecting its high quality.

On completion of the study programme the graduate will gain:

Knowledge: Explanation the composition of milk and technological processes in dairy industry.

Skills: Indication technological equipment in relation to quality of dairy product.

Social Competencies: Activity during production, research and preparation of the report.

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#### Basic literature:

Gosta Bylund, 1996, Dairy processing handbook. Publisher Tetra Pak Processing Systems AB, S-221 86 Lund, Sweden;  
Ramesh C. Chandan, Arun Kilara, Nagendra P. Shah, 2016, Dairy Processing and Quality Assurance. Ed. John Wiley & Sons Ltd., Wiley Blackwell.

Supplementary literature: Publications connected with milk chemistry and dairy technics and technology.

IDF Factsheet 001/2018-02; Heat treatment of milk – Overview;

Paul Mc Sweeney, 2004, Biochemistry of cheese ripening. 2004 Society of Dairy Technology;

Parmjit S. Panesar, Fermented Dairy Products: Starter Cultures and Potential Nutritional Benefits. Food and Nutrition Sciences, 2011, 2, 47-51;

Yantiyati Widyastuti, Rohmatussolihat, Andi Febrisiantosa, The Role of Lactic Acid Bacteria in Milk Fermentation. Food and Nutrition Sciences, 2014, 5, 435-442.

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The allocated number of ECTS points consists of:

Contact hours with an academic teacher:

- participation in classes 30 h
- consultation 4 h

Student's independent work: 41 h, including:

- learning to practical classes and colloquiums 31 h
- preparation of reports after laboratory classes 10 h