

Food Safety and Quality Management – descriptions of offered courses

SUMMER SEMESTER

Food microbiology – 4 ECTS - Lectures, Laboratories

The course covers issues related to morphology, physiological properties of the main groups of microorganisms (bacteria, fungi, viruses), aspects related to the kinetics of microbial growth, nutrition and metabolism, as well as the occurrence of microorganisms in the natural environment and their impact on this environment. The thematic scope is also devoted to the characteristics of microorganisms present in selected groups of foodstuffs and to the review of the most important groups of microorganisms that are potential contaminants of food products and their impact on the spoilage processes of food products.

Food chemistry – 3 ECTS - Lectures, Laboratories

The subject covers issues in the field of chemical composition of food and the characteristics of food raw materials, including physical and chemical properties, chemical structure, and nutritional properties of individual food ingredients and food additives.

Processing of animal raw materials – 4 ECTS - Lectures, Laboratories

The course covers issues related to the acquisition and processing of beef, pork and poultry meat as well as cow's milk, quality requirements for raw materials and their processing products, methods of assessing these characteristics, the importance of processing processes in shaping the quality of finished products, and the characteristics of products made of meat and milk.

Processing of plant raw materials – 4 ECTS - Lectures, Laboratories

The subject covers issues in the field of directions and technologies of processing cereal, root, fruit and vegetable raw materials, quality requirements for raw materials and their processing products, methods of assessing these characteristics, and the importance of processing processes in shaping the quality of finished products, as well as the basic principles of safe food production and use of environmentally friendly technologies.

Food commodity science – 4 ECTS - Lectures, Laboratories

Presentation of the multidisciplinary nature of commodity science, its position in the science system, and examples of scientific experiments conducted in commodity science research.

Food biotechnology – 3 ECTS - Lectures, Laboratories

The subject covers issues in the field of optimal conditions for the implementation of biotechnological processes and operations as well as unit operations determining the quality of products, including the improvement of organoleptic characteristics of products (color, taste, smell) and their nutritional value (content of proteins, lipids, saccharides).

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Food law – 2 ECTS - Lectures, Exercises

The subject covers issues related to the basic principles of the food law system, basic concepts in the field of health care, principles of organization and functioning of the health care system in Poland, the Act on Public Health in the context of food and nutrition law, selected legal regulations regarding food safety and nutrition, the functioning of official food control, with particular emphasis on the State Sanitary Inspection and the food labeling system.

Food authenticity – 4 ECTS - Lectures, Exercises, Laboratories

The subject covers issues in the field of food authenticity. The course gives students the opportunity to learn about the criteria for assessing the authenticity of food for the most frequently falsified product groups and enables the practical use of analytical tools for detecting adulteration and confirming authenticity.

Convenience and functional food – 4 ECTS - Lectures, Exercises, Laboratories

The subject covers the issues of the type and amount of bioactive substances contained in raw materials of plant origin (including herbal raw materials) and animal. Characteristics of the chemical, physical and health-promoting properties of these ingredients. Evaluation of selected health-promoting properties of these ingredients.