

After completion of the 2Nd degree studies in main field of Food Technology and Human Nutrition the graduate:

KNOWLEDGE

Has an advanced knowledge of innovative processes, development trends and directions research in the field of food processing and human nutrition.

Has detailed knowledge of the scientific-background concerning to food technology and human nutrition, which are the basic in the field of food processing and in specialization chosen by them.

Has detailed knowledge concerning the risk of the physical, chemical and microbiological contamination of foods as well as environment and knows the ways of reducing these risk.

Identifies the food as a source of nutrients and bioactive compounds, which can be modified to obtain specific characteristics and functionality.

Knows the rules and the use of advanced analytical techniques used for foods analysis (e.g. Vis spectroscopy, UV, IR, NMR, MS, fluorescence, AA, GLC, HPLC) and as well as methods for assessment of nutritional patten, habits and nutritional status.

Knows the principles of methods and use of forecasting techniques in the processing and distribution of foods.

Understands the importance of national and international regulations concerning the production and distribution of food under the provisions of law, not having an obligatory.

Student knows the rules of the production of GMO and can explain the reasons for introduction of GMO into production of foods.

Knows the role of nutrigenomics in field of human nutrition.

Knows the advanced statistical methods in planning and optimalization of experiments as well as data analysis.

Understands global and local politisc of human nutrition.

Knows the possibilities of using of biocatalysis in the food industry and knows how to regulate the enzymatic processes.

Has a general knowledge of computer science customized to the food and nutrition science.

Knows the roles of preparation of scientific thesis.

SKILS

Obtains information from scientific literature, databases and other sources, give their interpretation and prepares their synthetic analysis of the correct documentation.

Demonstrates ability to accurately, concisely and proper communication with different persons in the form of verbal, written and graphics in a professional and other environments, also in a foreign language at the B2 level.

Knows and is able to use the basic information from computer science for data analysis and graphics.

Student analyzes the various situations during production, storage and distribution of food products.

He is able plan and manage the actions to improve the quality of food. He is able to plan action for safety of environment.

Proposes solutions for practical problems associated with food production.

Is able by himself perform a specific research task in the field of food science and human nutrition, as well as present in written and / or oral form reports from the studied problem.

Analyzes and critically evaluate different technical and technological solutions in the field food processing and human nutrition.

Evaluates and applies in practice the main standard in agro-food sector (eg, EC, ISO, BS) concerning to the food production and safety.

Is able to apply basic and advanced methods for statistical planning and optimization experiments and the analysis of obtained results.

Uses, analyzes and interprets the results advanced measurements used to food testing (e.g., IR spectroscopy, NMR, MS, fluorescence, atomic force GLC, HPLC).

Is able to apply basic principles of food science to develop new products, processing and packaging technology, taking into account the nutritional recommendations.

Is able to plan and perform simple reactions of biosynthesis of valuable metabolites. He is able to demonstrate how the various parameters affect the microbial and enzymatic biosynthesis and calculates the efficiency of this process.

SOCIAL COMPETENCE

Gains new/current information concerning to food technology science. This knowledge may be used in research or industry.

Is aware of the responsibility for the confidentiality of certain activities, particularly relating to disclose the results of research and development.

Has the ability to participate in research and development of projects relating to food and nutrition.

Is aware of the importance of professional and ethical responsibility for safe food production as well as for environment.

Is aware of the level of his knowledge as well as skills and understands the needs for continuing education and take action to increase economic activity and social environment in which he lives and works.

Prepares and share with society information about the production of healthy food and the guidelines of nutrition.

Can think and act in an entrepreneurial manner.

Is able to choose the best options to achieve objectives and / or tasks.

B / Area of education in the medical sciences, health sciences and physical education

After completion of the 2nd degree studies in main field of Food Technology and Human Nutrition the graduate:

KNOWLEDGE

Has advanced information in area of human nutrition. He understands scientific basic for diet preparation and its impact on human health.

SKILLS

Is able to explain the effect of nutritional pattern on human health. He is able assess mistakes and give feedback and advices in this area.

SOCIAL COMPETENCE

Is aware of the importance of professional and ethical responsibility for the proper planning of nutrition of different groups of population.

Education effects for speciality: - Food Technology

After graduation of graduate studies in field of Food technology and Human Nutrition, specialization Food Technology alumnus:

KNOWLEDGE

Has knowledge of high-speed and advanced methods for microbiological analysis of food and the environment, including the use of genetic tools.

Is able to explain the needs and the principles for assessment of authenticity and traceability of food products.

Has advanced knowledge in the management of systems in food chain to improve quality of food products.

Knows the possibilities of the use of microorganisms and their metabolites. He understands the dangers arising from microbiological contamination of food and knows how to protect food products.

SKILLS

Is able to assess product with regulations and specifications.

Understands and uses different methods of sterilization and disinfection, choosing them according to the process and the product. He is able to assess the effectiveness of sterilization and disinfection processes and identify the sensitivity of microorganisms on these processes.

SOCIAL COMPETENCE

Recognizes opportunities and risks associated with the use of microorganisms and their metabolic products in the human health and food quality, safety and the environment. He understands the need to inform the public.

Education effects for speciality: - Human nutrition and dietetics

After graduation of graduate studies in field of Food technology and Human Nutrition, specialization Human nutrition and dietetics alumnus:

KNOWLEDGE

Has advanced knowledge concerning the neurohormonal regulation of physiological processes, physiology of digestive, respiratory, circulatory nervous system, hormones production, endocrine glands, digestion and absorption of nutrients.

Has advanced knowledge concerning human anatomy with particular emphasis on the digestive system and endocrine glands.

Knows the symptoms and causes of disorders resulting from malnutrition and / or nutritional status. He understands the effect of lifestyle on health as well as healthy life style on health.

Knows the role of vitamins in metabolic pathway.

Knows the objectives and methods in nutritional education.

SKILLS

Is able to use hi-tech equipments which are used in assessment of nutritional status.

Is able to present and explain the dietary guidelines and their impact on human health.

Identifies nutritional mistakes (also cultural or religiously or ethically), is able to formulate corrective action of nutritional plan and preventive actions.

Applies specialized information technology tools in the obtaining and processing of information, statistical calculations and computer graphics.

Is able to prepare an oral presentation, and present results, both in Polish and foreign language.

Selects the method of nutritional and health education, depending on the target group, formulate key objectives and specific prevention programs and plans various stages for realization.

SOCIAL SKILLS

Is aware of the importance of professional and ethical responsibility for the proper planning of nutrition of different population groups, and is aware of its own limitations in this area and the need to use if necessary help of experts.

Can identify and explain complex issues associated with dietary errors and can make recommendations on various aspects of nutrition (including product selection, cooking techniques) in accordance with the principles of dietary guidelines.

Pays attention on the prestige associated with the profession (eg nutritionist, food technologist).