



## Descriptions of courses offered in the 2023/2024 Academic Year

### Department: **DIETETICS** Faculty of Health Sciences

#### 1. Human Nutrition part 1

The aim of the course is to familiarize students with the basic issues of nutrition science.

Topics:

- Historical overview of the evolution of nutrition.
- Information contained in the food composition tables.
- Metabolic processes, energy balance of the system and energy sources.
- Proteins, carbohydrates, fats – division, role in nutrition, digestion and absorption, nutritional value, sources and standards.
- Minerals and vitamins – functions in the body, food sources.
- Acid-base balance.

#### 2. Medical Biology

The aim of the course is to familiarize students with the structure and function of the tissues that make up the human body. Topics:

- Structure and function of the epithelial tissue.
- Structure and function of the connective tissue.
- Structure and function of the muscle tissue.
- Structure and function of the nervous tissue.

#### 3. General Biochemistry and Food Biochemistry

The aim of the course is to familiarize students with the basic organic compounds found in the human body. Topics:

- Structure, function and classification of amino acids.
- Structure, function and classification of proteins.
- Structure, function and classification of carbohydrates.
- Structure, function and classification of lipids.

#### 4. Nutrition in Health and Disease part 1

The aim of the course is to familiarize students with the principles of diet therapy in selected disease entities. Topics:

- Classification and characteristics of hospital diets.
- Nutrition for gastroesophageal reflux disease.
- Nutrition in acute and chronic gastritis.
- Nutrition in gastric and duodenal ulcer disease.
- Nutrition in ulcerative colitis.
- Nutrition in Leśniowski and Crohn's disease and irritable bowel disease.
- Nutrition in chronic liver diseases, liver failure and after liver transplantation.



#### 5. Pediatrics Nutrition

The aim of the course is to familiarize students with the basic knowledge of pediatrics, as well as nutrition of children, pregnant women and women during lactation. Topics:

- Ontogenetic development and assessment of nutritional status.
- Clinical symptoms and course of diet-related diseases.
- Nutritional management in functional disorders of gastrointestinal tract.
- Planning of the appropriate nutrition for pregnant and lactating women as well as for naturally and artificially fed infants.

#### 6. Analysis and Assessment of Food Quality

The aim of the course is to familiarize students with the basic concepts of food and nutrition, methods of basic nutrient analysis and the assessment of food quality. Topics:

- Collection and initial preparation of test samples.
- Methods used in food evaluation.
- Determination of the content of basic food ingredients in the food sample (proteins, carbohydrates, lipids, minerals and vitamins).
- Food contamination.

#### 7. Food and Meal Technology and Commodity Science part 1 and part 2

The aim of the course is to familiarize students with qualitative and culinary evaluation of raw materials, semi-finished products and ready meals. Topics:

- Issues related to the preliminary and heat treatment of raw materials and changes taking place during these processes.
- Processes used in gastronomic technology of various groups of raw materials.
- Organoleptic analysis of food.
- Determination of the influence of the quality of the raw material on the quality of the dish.

#### 8. Hygiene, Toxicology and Food Safety

The aim of the course is to familiarize students with the requirements for hygiene and safety of food production. Topics:

- Food safety management systems in food industry plants (GHP, GMP, HACCP, ISO 22000).
- Classification of poisons and factors influencing the toxicity of substances.
- Methods of determination of toxic substances in food.
- Food poisoning epidemiology.
- Responsibilities of employees and employers in the field of production hygiene.
- Technical, hygienic and sanitary requirements for food industry plants.



#### 9. Human Nutrition part 2

The aim of the course is to familiarize students with the basic issues of nutrition science.

Topics:

- The nutritional value of food products.
- Functional food and food for special nutritional purposes.
- Healthy eating pyramid.
- Nutrition standards.
- Principles of menu planning.
- Assessment of diet and nutritional status.
- Principles of proper nutrition of healthy people depending on their age and physiological state.

#### 10. Food Chemistry

The course covers issues in the field of food chemistry. Topics:

- Chemical composition of food.
- Characteristics of food raw materials, including physicochemical properties, chemical structure and nutritional properties of individual food ingredients and food additives.
- Food safety and rules of work in chemical laboratories.

#### 11. Basis of Mass Caterers Organisation

The aim of the course is to familiarize students with the basic issues of mass nutrition. Topics:

- General characteristics of the catering activity based on the Polish Classification.
- Departments in mass catering establishments.
- Cold food kitchen and hot food kitchen.
- Equipment and arrangement of technological equipment in the kitchen.
- Ways of post-consumer waste disposal.
- Food distribution system in hospitals.
- Consumer service systems.
- Nutrition in hospitals as a part of treatment.

#### 12. General Microbiology and Food Microbiology

The aim of the course is to provide students with knowledge of the morphology, anatomy and physiological properties of selected groups of microorganisms. Topics:

- Kinetics of microbial growth, ways of nourishing microorganisms and issues related to their metabolism.
- Characteristic of microflora of selected groups of food products, water and air.
- The groups of microorganisms responsible for food spoilage.
- The basics of food preservation and issues related to probiotic microorganisms.



### 13. Nutrition and Dietetics Workshop

The aim of the course is to familiarize students with:

- home measures;
- the nutritional value of juices, drinks, nectars and puree juices;
- the rules of the cocktail diets;
- the use of poultry meats, slaughter and exotic animals, eggs, marine and freshwater fish in dietetics;
- the role of omega-3 fatty acids in the diet;
- the use of bee products and food convenient in dietetics;
- alternative sweeteners;
- the nutritional value of fast food dishes;
- the use of legumes as an alternative to meat dishes;
- properties of green tea, coffee, cocoa and alcoholic beverages in dietetics;
- the principles of an easily digestible, high-residual and high-protein diet.

### 14. Nutrition in Health and Disease part 2

The aim of the course is to:

- obtain knowledge in the field of assessing the diet and its correction in people with normal and abnormal body weight (malnourished and / or overweight / obese);
- obtain knowledge of the principles of dietary management in diseases depending on the stage of the disease;
- acquire the ability to determine the nutritional and energy value of diets based on tables of nutritional value of food products and typical dishes and computer programs;
- acquire skills in conducting a nutritional interview;
- acquire competence in promoting a healthy lifestyle.