ANALYSIS AND ASSESSMENT OF FOOD QUALITY

Objectives and tasks of the subject:

Introduction to basic food ingredients (organic, inorganic) and basic methods used in food evaluation to control product quality and food processing. The purpose of the exercises (seminar and laboratory) is the practical application of the methods learned and the acquisition of basic skills in the operation of standard apparatus and devices used in the analysis and evaluation of food quality

Program content:

lp.	Lectures
W1	Basic issues in the field of food quality and its assessment. Main goals of food analysis
W2	Basic food ingredients, interactions between them and processes occurring in them
W3	Food contaminants and their sources.
W4	Legal regulations regarding the quality and safety of food and methods of its labeling. Food law (regulations, directives, decisions). Codex. Standardization at national, European and global level.
W5	Division and general characteristics of methods used in food quality assessment. Chemical and physicochemical methods. Instrumental methods. Sampling and preparation for determination of food samples
W6	Sensory analysis methods
W7	Chemical and physicochemical methods used in food quality assessment
W8	Characteristics of the most important instrumental methods (colorimetric, spectrophotometric, chromatographic) used in food analysis.
lp.	Seminars:
C1	Basics of laboratory work, determination and results
C2	Methods for determining basic food ingredients and their transformation products
C3	Methods for processing results
C4	Food preservation methods
C5	Sensory analysis in the assessment of food quality part I. and part II (laboratories)
C6	Food additives
C7	Thin layer chromatography - separation of food colors (laboratories)

NUTRITION

Objectives and tasks of the subject:
1. Acquainting with the principles of human nutrition in accordance with nutrition standards.
2. Discussing the impact of nutrition on human health and health consequences of nutritional errors.
3. Acquaintance with the classification and characteristics of diets.

Program content:

lp.	Lectures
W1	Norms of human nutrition
W2	Methods for assessing nutritional status
W3	Nutrition and human health
W4	Nutritional errors and their health consequences
W5	Classification and characteristics of diets (basic diet, easily digestible, rich in residual, liquid, low-energy, with a controlled content of fatty acids, with limitation of easily digestible carbohydrates, rich and low-protein)
lp.	Seminars:
C1	Planning nutrition according to standards. Menu assessment
C2	Nutritional assessment
C3	Assessment of nutritional errors and their modification
C4	Planning selected diets

FOOD TECHNOLOGY AND COMMODITY SCIENCE	
Objectives and tasks of the subject: 1. Presentation of commodity characteristics of selected food raw materials of plant and animal origin 2. Presentation of the impact of basic technological processes used in food processing technology and gastronomy on the usable and nutritional properties of food 3. Presentation of changes in food ingredients as a result of correctly used technological processing in the process of shaping the quality and nutritional value of dishes.	
Program content:	
Lp.	Lectures
W1	Basic processes of pre-treatment and thermal processing of food raw materials in gastronomy technology
W2	Changes occurring in food ingredients during the technological treatment process
W3	The use of raw materials of plant origin in gastronomy technology
W4	The use of raw materials of animal origin in gastronomy technology
W5	The use of convenient food and various forms of raw material for the production of dishes on the example of raw materials of plant origi
W6	Technology of producing dishes from seeds of legumes and mushrooms. Technology for preparing soups and sauces. The role of spices and other flavor additives in food technology.
W7	The use of eggs, milk and dairy products in food technology.
W8	The use of flour and groats in food technology. Technological process of bread and pastry cakes.
Lp.	Seminars:
C1	Changes occurring in nutrients in the process of technological processing
C2	Food dyes and their transformation in food preparation processes
C3	The use of legume seeds in food technology

C4	Characteristics of technological processes of dishes from starch raw materials
C5	Structural role of eggs in food technology
C6	Characteristics of technological processes of milk dishes
C7	Methods of thickening and solidifying dishes on the example of desserts
C8	Impact of various factors on the structure and texture of cooked vegetables
C9	The influence of the raw material form on the sensory quality and nutritional value of dishes
C10	Impact of the thawing process on the quality, efficiency and nutritional value of a raw material on the example of fishead and pastry cakes.

NUTRITIONAL EDUCATION	
Objectives and tasks of the subject: **To acquaint the student with knowledge about the ways and stages of nutrition education, its place in health education and the role of a dietitian in health care.** **To develop skills in prepare educational materials, planning visit scenarios, group presentations and conducting nutritional education**	
Program content:	
lp.	**Lectures**
W1	**Place of nutritional education in health promotion**
W2	**Nutritional hazards in Poland and the role of nutritional education in the prevention of nutritional errors**
W3	**Stages of nutrition education planning. Needs diagnosis.**
W4	**Objectives and tasks of nutrition education. Rules of conduct when formulating goals. Models of eating behavior changes**
W5	**Selection of methods and techniques in conducting education. The role of persuasion in the education process**
W6	**Evaluation of the effects of nutrition education..**
W7	**The role of the product in nutrition education (packaging, quality, brand)**
W8	**Factors determining changes in eating behavior - economic and psychological factors - views, motives, attitudes - in shaping healthy behavior**
W9	**The role of the closer (family, school, reference group) and further (mass media, internet) in shaping healthy attitudes**
W10	**Stereotype as a determinant in shaping eating behavior**
lp.	**Seminars:**
C1	**Model planning and evaluation of communication system in nutrition education.**
C2	**Diet card; Model of dietary counseling proposed by EFAD (European Federation of the Association of Dietitians);**
C3	**Methods of constructing educational materials.**
C4	**Critical analysis of eating mistakes of selected groups of the population, possibilities of improvement - discussion. Nutritional education for an obese child and an adult, including family and living environment. Obesity criteria, causes and effects, food traps, nutrition tips.**
C5	**Health hazards arising from improper nutrition. Assessment of attitudes towards health and healthy nutrition.**
C6	**Health education in various environments. Assessment of attitudes towards FAS-promoting foods, risk assessment of eating disorders. Factors affecting food selection.**

C7	Nutrition education for the elderly (healthy diet in old age - the impact of aging on nutrition, prevention, preparation for old age). Creating an educational program for various age groups, pptx presentations
C8	Creating a scenario of educational classes shaping proper eating habits for different age groups, analysis of the presented scenarios.

TECHNOLOGY OF DIETETIC FOODS	
Objectives and tasks of the subject: 1. Getting to know the possibilities and techniques of preparing dietary dishes for people in different physiological states, for different groups of the population, both individual and collective nutrition	
Program content:	
Lp.	Lectures
W1	Basic information on foodstuffs. Food preservation methods. Occupational health and safety during the food production process. Sensory evaluation of raw materials and dishes. Dietary and health evaluation of selected food products.
W2	Technological processes in food production. Economic measures. Culinary treatment methods (initial, heat). Production technology of selected groups of dishes..
W3	Basic changes occurring in food during preparation and storage of dishes. New trends in gastronomy technology. Technological systems for the production of dishes (cook-serve, cook-chill, cook-freeze, sous-vide).
W4	Additives used in food. Dietetic evaluation of spices, sweeteners, spice concentrates and their use. Characteristics of food fats and their use in dietary foods.
W5	Characteristics and use of diets in prevention and treatment. Development, implementation and presentation of a food technological design.
Lp.	Seminars:
C1	Raw materials and technology for preparing dietetic dishes - nutrition in prevention and cancer
C2	Raw materials and the technology of preparing dietary dishes - nutrition in hypertension
C3	Raw materials and the technology of preparing dietary dishes - nutrition in diseases of the pancreas, liver
C4	Raw materials and technology for preparing dietetic dishes - nutrition in gastrointestinal diseases. Adult nutrition - elderly.

NUTRITION COUNSELLING	
Objectives and tasks of the subject: 1. Acquiring practical skills in working with the patient 2. Formulating dietary recommendations in selected disease entities 3. The role of supplementation in nutrition	
Program content	
lp.	Lectures
W1	The role of a dietitian in the prevention and treatment of diseases. Forms of dietary counseling.
W2	Dietary system and diet nomenclature in force in Poland. Organization of nutritional counseling - individual and group counseling. Planning nutrition strategies and drawing up nutrition plans

	Principles of communication with the patient, methods of solving nutritional and communication problems. Difficult patient in the dietitian's office.
W3	Labeling of products for an informed choice of products for consumption. Characteristics and types of food additives.
W4	Standards for the treatment of overweight and obesity according to PTD. Bariatric dietetics.
W5	Standards of treatment of malnutrition in cancer. Characteristics and selection of dietary supplements and nutritional preparations.
lp.	Seminars:
C1	Nutritional and medical history in dietary treatment. Constructing a questionnaire for a nutritional interview. Planning comprehensive dietary advice and visit scenario.
C2	Product labeling, food choice for consumption. Food additives.
C3	Assessment of energy and nutrient requirements. Assessment of patient's laboratory and anthropometric parameters. Analysis of eating habits and possible mistakes in diet based on case reports. Case study. Solving communication problems with a difficult patient. Case study.
C4	Solving communication problems with a difficult patient. Case study.
C5	Formulation and design of dietary recommendations and nutritional plan in co-existing disease entities: obesity - hypertension / gout / diabetes / kidney disease / food allergies.
C6	Formulation and design of dietary recommendations and nutritional plan in co-existing disease entities: malnutrition - associated with chronic disease. Dietary supplements and nutritional preparations in diet therapy of diseases.

THE BASIS OF EPIDEMIOLOGY	
Objectives and tasks of the subject: 1. Assimilation of basic types of epidemiological methods and sources of information used by the epidemiologist. 2. Learning the assessment of the state of health of the population based on positive and negative measures, using basic concepts in this area. 3. Spreading health education in the field of preventing infectious diseases, especially those transmitted by food.	
Program content	
lp.	Lectures
W1	Basic concepts and definitions in epidemiology. Division of epidemiology, international epidemiological measures.
W2	Basic concepts in the epidemiology of infectious diseases. Ways of spreading pathogenic microorganisms, sources of infection, types of carrier.
W3	Preventive healthcare and vaccinations. Types of vaccines, division of preventive vaccinations, obligatory vaccination program issued by the Chief Sanitary Inspectorate.
W4	Development of an outbreak and food poisoning. Definitions, division of food poisoning by causes, food poisoning carriers, sources of infection.
W5	Clinical epidemiology: epidemiology of infections and viral diseases, including viral hepatitis. Prevention of viral diseases and methods of prevention.
lp.	Seminars:
C1	Epidemic chain and control of infectious disease. Epidemiological inquiry. Infectious outbreak, epidemics and pandemics.

C2	Selected issues in the epidemiology of non-communicable diseases. Division and methods of measuring health and diseases in the human population. Environmental determinants of population health.
C3	Epidemiology of infectious diseases in the world, elimination programs. Infectious diseases in Poland.
C4	Epidemiological analysis of food and nutrition. Epidemiological control of food production and sale sites.
C5	Basic elements of the organization of sanitary and epidemiological services. Epidemiology of hospital infections.

HUMAN PHYSIOLOGY	
Objectives and tasks of the subject: 1. Acquainting with the structure and mechanisms of functioning of subsequent human physiological systems. 2. Demonstration and explanation of the impact of pathogenic factors on the functional state of the body and explanation of the mechanism of development of these disorders.	
Program content	
lp.	Lectures
W1	Digestion and absorption, secretory activities of the digestive glands
W2	Secretory system and reproductive physiology
W3	The balance of water-electrolyte and acid-base economy
W4	Mechanism of thermoregulatory reactions
W5	Neurophysiology of pain
W6	The essence of health and explanation of the disease in the context of homeostasis disorder
W7	Pathogens and their mechanism of action
lp.	Seminars:
C1	Impact of diet on the body, the role of supplements, avitaminosis
C2	Water and electrolyte balance disorders
C3	Thermoregulation disorders and pain sensation
C4	Action of pathogenic agents
C5	Inflammatory mechanisms
C6	Healing process and its disorders

MICROBIOLOGY
Objectives and tasks of the subject: 1. The student gains basic knowledge in the field of bacteriology, virology and mycology and is familiarized with the working conditions in the microbiological laboratory.

2. In addition, the student is familiarized with the detailed biology of pathogenic microorganisms and their impact on the human body, and with the basic diagnostic methods used in microbiology. **3. Students are given special attention to the prevention of microbial infections in the cosmetology office.**	
Program content	
lp.	**Lectures**
W1	**Characteristics of the world of microorganisms. Comparison of prokaryotic and eukaryotic cells. Structure of the prokaryotic cell**
W2	**Characteristics of pathogenic bacteria for humansStaphylococcaceae, Streptococcaceae, Enterococcaceae, Bacillaceae, Clostridiaceae, Listeria sp., Corynebacteriaceae, Actinomycetaceae, Mycobacteriaceae, Neisseriaceae Enterobacteriaceae, Vibrionaceae, Haemilus sp Pseudomonas sp., Legionella sp., Bordetella pertussis, Campylobacteriaceae, Helicobacter pylori, Spirochaetaceae Mycoplasma sp., Chlamydia sp., Rickettsia sp.**
W3	**Microflora of a healthy human body**
W4	**Clinical Virology**
W5	**Clinical Mycology**
W6	**Microbiology and cosmetology - dependencies, common research areas, perspectives**
lp.	**Seminars:**
C1	**Basic ways of destroying microorganisms. Application of the microscopy technique in bacteriology (magnifier, light microscope).**
C2	**Classification, morphology and physiology of bacteria. Bacterial genetics: transduction, transfection, transformation. Procabits in industry**
C3	**Principles of microbiological diagnostics. Examination of the natural skin microflora by the impression method. Basics of antibiotic therapy, drug resistance of bacteria.**
C4	**Environmental microbiology. Mushrooms: taxonomy, structure and growth, metabolism, natural products**
C5	**Viruses: general characteristics, taxonomy, lytic and lysogenic life cycle. Antiviral drugs**