

**ISTINYE UNIVERSITY**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF NUTRITION AND DIETETICS**  
**COURSE DESCRIPTIONS**

**1<sup>st</sup> SEMESTER**

**Anatomy I (4 ECTS)**

It provides systematic, topographical and functional theoretical and practical knowledge of human anatomy to acquire knowledge, skills and attitudes that can be used in the professions of the graduates.

**Basic Chemistry And Laboratory I (3 ECTS)**

Atoms and atomic theory, chemical compounds, chemical reactions, introduction to reactions in aqueous solutions, gases, electrons in atoms, the periodic table and some atomic properties, chemical bonding and bonding theories.

**Physiology I (3 ECTS)**

The working mechanisms of cell, tissue, organ and different systems that make up the human body.

**Medical Biology And Genetics (3 ECTS)**

Living systems, biomolecules, cell structure and function, energy metabolism, DNA structure, synthesis and function; DNA packaging and fine structure of chromosomes, RNA structure, synthesis and function, genetic code and protein synthesis, basic principles in inheritance and Mendel inheritance in single gene disorders, cell cycle and cell divisions, mutation, genetic modified organism.

**General Business (2 ECTS)**

Basic information about business administration; establishment of enterprises; Legal structures of enterprises; business ethics and social responsibility; management and functions; marketing management; healthcare Management; production management; Human Resources Management; accounting and finance management.

### **Nutrition Education And Consultancy (3 ECTS)**

Nutrition education principles, methods, teaching methods.

### **General English I (3 ECTS)**

This course is a learner-centred, integrated-skills based course that will develop students in the four skills (reading, writing, listening and speaking) in an academic context.

### **Health Communication In Nutrition (3 ECTS)**

Overview of communication research and practice in various care contexts: client/provider interactions, provider/provider communication, communication in health care organizations, mediated messages in the marketing and promotion of health information, consumer advocacy, politics of health care.

### **Nutrition For Healthy Life I (3 ECTS)**

Energy and Oxidative Stress, Methylation, Sleep Nutrition Relationship, Stress Nutrition Relationship, Popular Diets, Elimination Diet, Probiotic-Prebiotic, Detoxification, Mindfull Eating.

### **Effective Speech and Diction (3 ECTS)**

Introducing breath, sound, and condensation devices; exercises for associating breath, sound, and dithering devices; Turkish speaking language rules; Turkish speaking rules; Differences in Turkish spoken language and writing language; Differences in Turkish spoken language and writing language; exercises on the association of breath, voice, sounding devices and speech rules on various texts; exercises on the association of breath, voice, accompaniment devices and speech rules on various texts.

## **2<sup>nd</sup> SEMESTER**

### **Anatomy II (3 ECTS)**

It provides systematic, topographical and functional theoretical and practical knowledge of human anatomy to acquire knowledge, skills and attitudes that can be used in the professions of the graduates.

### **Physiology II (3 ECTS)**

The working mechanisms of cell, tissue, organ and different systems that make up the human body.

### **Principles Of Metabolism (3 ECTS)**

Giving information to the students of the Faculty of Health Sciences about synthesis, breakdown and metabolism disorders in biomolecules in human metabolism. Studying the etiology of metabolical disorders like diabetes mellitus, obesity, cancer and cardiovascular disorders and the signal pathway defects causing metabolical disorders. Explain functional and content characteristics of devices used in clinics and laboratories.

### **Psychology (3 ECTS)**

The history of psychology includes fields, methods, theories, behavior and physiology, lifelong development, mental processes, intelligence, personality, abnormal behaviors, health stress and coping, learning, motivation and motivation.

### **Basic Knowledge And Technology (3 ECTS)**

Introduction to computer, basic concepts, hardware and software, keyboard usage, operating systems, Windows operating system, internet access, using mail, using search engines.

### **Nutritional Anthropology (3 ECTS)**

Anthropological factors that affect nutrition, origin and basic characteristics of human nutrition, evolution of nutritional habits in history.

### **General English II (3 ECTS)**

This course is a learner-centred, integrated-skills based course that will develop students in the four skills (reading, writing, listening and speaking) in an academic context.

### **Entrepreneurship (3 ECTS)**

In the future, or stand-alone businesses to take part in entrepreneurial activities as an administrator for the students will summarize the key elements is to teach entrepreneurship.

### **Manifesto Of İstinye (1 ECTS)**

### **Elective Course Of Faculty ( 3 ECTS)**

### **Nutrition And Genetics (2 ECTS)**

The aim of this course; explaining the affect of genetic to nutrition habits, affect and importance of nutrition at preventing illnesses that genetic may cause and remaining quality of life in high level.

## **3<sup>rd</sup> SEMESTER**

### **Principles Of Nutrition I (4 ECTS)**

The importance of nutrition, structures, definitions, classifications, functions, sources, recommended dietary allowances, and excessive intakes of carbohydrates, lipids and proteins. To teach of foods nutrient contents, preparations and cooking methods of foods and the applications of some basic and conventional recipes in the laboratory, according to the nutritional principles.

### **Nutritional Biochemistry I (4 ECTS)**

Carbohydrates, lipids, protein and amino acids metabolism, hormones and enzymes functions, nucleic acids as well as purine and pyrimidine metabolism.

### **Food Chemistry And Analyses I (5 ECTS)**

Structures, classifications and properties of carbohydrates, proteins and lipids with related quantitative and qualitative analysis. Structures and classifications of enzymes; their occurrence in foods and usage in food industry. Factors affecting enzymatic reactions. Functions and specifications of pigments, aroma and flavor compounds.

### **Microbiology (3 ECTS)**

Introduction to microbiology, structure, physiology and genetics of bacteria, antibiotics and resistance mechanisms, Introduction to immunology, basic immunological response mechanisms, serological tests, analysis methods of fungi, protozoa, helminth and viruses.

### **Professional English I (3 ECTS)**

The use and understanding of English terms related to nutrition and dietetics.

### **Information Literacy (3 ECTS)**

The aim of course to teach these subjects; using information resources actively, researching techniques, sharing knowledge to improve learning ability.

### **Interaction Of Diet And Microbiota (2 ECTS)**

This course involve these subjects; functional diarrhea, infectious diarrhea, functional constipation, irritable intestine syndrome, allergies of food, inflammatory intestine illnesses, obesity, hepatosteatosis, celiac, autism and microbiota, depression.

### **Elderly Nutrition (3 ECTS)**

The content of this course is metabolism and requirement levels of macro and micro nutrients in elderly individuals, evaluation of nutritional status of elderly individuals, providing nutritional support in elderly individuals, physiological and psychological changes in old age and their relationship with nutrition, supporting cognitive functions in elderly individuals, aging and endocrine aspects of Nutrition.

### **Psychosocial Rehabilitation (3 ECTS)**

Psychosocial rehabilitation, health, disability, disability concepts, psychosocial rehabilitation, stress, post-traumatic stress syndrome, psychosocial rehabilitation in vision and hearing impaired, psychosocial rehabilitation in physically disabled people, psychosocial rehabilitation in disabled children, psychosocial rehabilitation in chronic diseases, psychosocial rehabilitation in chronic diseases employment of disabled people, roles of local governments, environmental regulations are included in the course content.

## **4<sup>th</sup> SEMESTER**

### **Principles Of Nutrition II (5 ECTS)**

To teach of foods vitamin and mineral contents, preparations and cooking methods of foods and the applications of some basic and conventional recipes in the laboratory, according to the nutritional principles.

### **Nutritional Biochemistry I (3 ECTS)**

Carbohydrates, lipids, protein and amino acids metabolism, hormones and enzymes functions, nucleic acids as well as purine and pyrimidine metabolism.

### **Food Chemistry And Analyses II (5 ECTS)**

Food quality and affecting factors. Sensory evaluation of foods. Functional foods, pre- and probiotics, genetically modified foods, soy. Functions and properties of components which are found in fruits and vegetables, egg, milk and milk products, meat and meat products, cereals, tea, coffee, cacao and chocolate

### **Food Microbiology (4 ECTS)**

Importance of microbiology for food production, food spoilage and food borne infectious diseases.

### **Phytotherapy (3 ECTS)**

Historical development and conception of phytotherapy, herbal medicine definition, the current situation and the regulations in the world, standardization and production of herbal extracts, side effects and toxicity of herbal drugs, modern phytopharmacotherapy and their formulations, quality control of herbal drugs, plants used in the treatment of gastrointestinal diseases, cardiovascular diseases, respiratory diseases, urinary tract diseases, rheumatic complaints, nervous system diseases; gynecology, ophthalmology, dermatology and cancer, plants effective on the immune system.

### **Professional English II (3 ECTS)**

The use and understanding of English terms related to nutrition and dietetics.

### **Manifesto Of İstinye (1 ECTS)**

### **Sustainable Agriculture, Food And Nutrition – Legislation And Inspection Of Food (3 ECTS)**

### **Reading And Understanding Article (3 ECTS)**

## **5<sup>th</sup> SEMESTER**

### **Medical Nutrition Therapy In Adult Disease I (5 ECTS)**

The definitions, etiologies, complications, symptoms and medical nutrition therapy of obesity, eating disorders, Diabetes mellitus, Reactive hypoglycemia, coronary heart diseases, hypertension, gastrointestinal system diseases, skeletal system disorders, gout and practice about medical nutrition therapy.

### **Medical Nutrition Therapy In Childhood Diseases I (4 ECTS)**

Acute gastroenteritis, malnutrition, lactose intolerances, other carbohydrate malabsorption, coeliac diseases-other protein malabsorption, food allergies, childhood obesity, metabolic syndrome, eating disorders, type 1 diabetes mellitus, kidney diseases and nutrition therapy.

### **Mother And Child Nutrition (4 ECTS)**

The importance of nutrition in child and mother, methods of increasing the effectiveness of nutrition, taching of the nutritional status according to age groups.

### **Food Service Systems I (4 ECTS)**

Commercial enterprises in institutional food service systems, organization of this companies/kitchen personnel, commercial companies kitchen/restaurant plan, large range preparation, methods of cooking and service, hygiene / HACCP, cost control.

### **Biostatistcs (3 ECTS)**

Description of Biostatistcs, methods, use of reseach methods.

### **Determination Of Nutritional Status In The Community (2 ECTS)**

Nutritional problems and epidemiology (protein-energy malnutrition, obesity, diet-related chronic diseases, iron deficiency anemia, iodine deficiency disorders, dental caries, zinc deficiency, rickets, osteomalacia, osteoporosis, vitamin deficiencies, folic acid deficiency etc) in Turkey and in the World, nutrition of risk groups (workers and elderly etc), management of nutrition in disasters, intervention programmes, national food and nutrition policies.

### **Pathophysiology Of Diseases (2 ECTS)**

Pathophysiology of common diseases in adults.

### **Academic English III (3 ECTS)**

The use and understanding of English terms related to nutrition and dietetics.

### **Manifesto Of İstinye (1 ECTS)**

### **Recipe Development And Portioning (3 ECTS)**

Students learn the principles and techniques of recipe development from formulation of a base recipe to the finished product through practical experience in a laboratory setting. Through individual and group work students participate in designing, developing and evaluating a recipe and apply techniques for nutrient analysis, expansion and costing. Computer software designed especially for the food industry is used. A summary of the development process and the final product is presented in class.

## **6<sup>th</sup> SEMESTER**

### **Medical Nutrition Therapy In Adult Disease II (5 ECTS)**

The definitions, etiologies, complications, symptoms and medical nutrition therapy of obesity, eating disorders, Diabetes mellitus, Reactive hypoglycemia, coronary heart diseases, hypertension, gastrointestinal system diseases, skeletal system disorders, gout and practice about medical nutrition therapy.

### **Medical Nutrition Therapy In Childhood Diseases II (4 ECTS)**

Acute gastroenteritis, malnutrition, lactose intolerances, other carbohydrate malabsorption, coeliac diseases-other protein malabsorption, food allergies, childhood obesity, metabolic syndrome, eating disorders, type 1 diabetes mellitus, kidney diseases and nutrition therapy.

### **Food Service Systems II (3 ECTS)**

Commercial enterprises in institutional food service systems, organization of these companies/kitchen personnel, commercial companies kitchen/restaurant plan, large range preparation, methods of cooking and service, hygiene / HACCP, cost control.

### **Clinical Obesity In Children And Adolescents (3 ECTS)**

Prevention, diagnosis and treatment of obesity in children and adolescents.

### **Research Methods (2 ECTS)**

This course provides an introductory overview of approaches to nutrition science research. It will equip students with an understanding of research design and the different research methodologies required to undertake the most common forms of qualitative and quantitative data collection and analysis used in nutrition science research.

### **Nutritional Problems In The Community And Epidemiology (ECTS 3)**

Nutritional problems and epidemiology of nutritional problems in Turkey and in the world, Problems of protein-energy malnutrition, obesity, diet-related chronic diseases, iron deficiency anemia, iodine deficiency disorders, dental caries, zinc deficiency, rickets, osteomalacia, osteoporosis, vitamin deficiencies, folic acid deficiency etc) and their epidemiology, Elderly nutrition, Management of nutrition in disasters, Food supplements and food fortification, Nutritional genomics in public health, National food and nutrition policies.

### **Nutrition For Special Groups (3 ECTS)**



Nutrition for 0-1 year old children, pre-school children, school age children, workers, athletes, pregnant woman, adolescents, athletes and old people.

#### **Academic English IV (3 ECTS)**

The use and understanding of English terms related to nutrition and dietetics.

#### **Manifesto Of Istinye (1 ECTS)**

#### **Professional Practice (0 ECTS)**

It is aimed to ensure that pupils have knowledge and skills in identifying and assessing the nutritional status of individuals and communities, interpreting, identifying problems, proposing solutions and providing training. In this internship, students will be able to develop nutrition education programs / materials for specific groups that will be able to identify the nutritional status and nutrition habits of the community, design individual and collective adequate and balanced nutrition and health trainings.

#### **Cancer And Nutrition (3 ECTS)**

Cancer, development of cancer, the clinical picture of cancer, nutritional therapy practices in cancer patients, the effects of food and food compounds in cancer development and treatment, the usage of medical nutritional product in cancer patients, food carcinogens.

### **7<sup>th</sup> SEMESTER**

#### **Clinical Practice I (8 ECTS)**

Practicing the techniques of hospital and institutional dietitian (Dietetic Internship) by the supervisors.

#### **Clinical Practice II (8 ECTS)**

Practicing the techniques of hospital and institutional dietitian (Dietetic Internship) by the supervisors.

#### **Graduation Project I (5 ECTS)**

Planning and conducting a research on food, nutrition and dietetics related subjects. Under supervision of a faculty member, the student will design and conduct a research project and prepare a written paper including a review of literature, identification of the problem, methodology, results and discussion, summary and citing of references.

#### **Seminar I (2 ECTS)**

Searching, discussion and presentation of data about special subject in food, nutrition and dietetics area under a supervision of a teaching staff.

### **Turkish Language I (ECTS 2)**

Knowledge of sentences, disorders of expression, written and oral expression.

### **Atatürk's Principles And History Of Turkish Revolution I (ECTS 2)**

Parallel to the establishment of the Republic of Turkey, the assessment of the Turkish society as within the level of civilized nation-states, the experience of Turkish revolution with its sui-generis character in definition of the nation-state in a chronological line beginning from the Ottoman Turkish Imperial state: The Classical and post classical ages, late 18th and 19th centuries, the Second Constitutional Era, The First World War, The Turkish National Struggle of 1918-1922 and the interval of 1923-60; the assessment of the modern Turkish nation-state by the restructuring of the state & the nation and the stages of the change and transformation in Turkish political and social system, the analysis of the political, social, economic and cultural transformation with respect to the internal and external political developments and their actors, the evaluation of the historical stages of the establishment of the modern Turkish state as a reference of solution and comparison for current debates in Turkish society and politics. The understanding of historical dynamism of change in Turkish politics and society.

### **Nutrition In Surgical Patients (3 ECTS)**

Nutritional status assessment in adult patients, Enteral and parenteral nutrition methods, requirements, products in adult patients, Discussing in different approaches and methods in the field of enteral and parenteral nutrition therapy, Enteral and parenteral nutrition practices in adult patients.

After bariatric surgery, assess the patient's nutritional status and create an appropriate nutritional treatment plan.

## **8<sup>th</sup> SEMESTER**

### **Clinical Practice III (8 ECTS)**

Practicing the techniques of hospital and institutional dietitian (Dietetic Internship) by the supervisors.

### **Clinical Practice IV (8 ECTS)**

Practicing the techniques of hospital and institutional dietitian (Dietetic Internship) by the supervisors.

### **Graduation Project II (5 ECTS)**

Planning and conducting a research on food, nutrition and dietetics related subjects. Under supervision of a faculty member, the student will design and conduct a research project and prepare a written paper including a review of literature, identification of the problem, methodology, results and discussion, summary and citing of references.

### **Seminar II (2 ECTS)**

Searching, discussion and presentation of data about special subject in food, nutrition and dietetics area under a supervision of a teaching staff.

### **Turkish Language II (ECTS 2)**

Knowledge of sentences, disorders of expression, written and oral expression.

### **Atatürk's Principles And History Of Turkish Revolution II (ECTS 2)**

Parallel to the establishment of the Republic of Turkey, the assessment of the Turkish society as within the level of civilized nation-states, the experience of Turkish revolution with its sui-generis character in definition of the nation-state in a chronological line beginning from the Ottoman Turkish Imperial state: The Classical and post classical ages, late 18th and 19th centuries, the Second Constitutional Era, The First World War, The Turkish National Struggle of 1918-1922 and the interval of 1923-60; the assessment of the modern Turkish nation-state by the restructuring of the state & the nation and the stages of the change and transformation in Turkish political and social system, the analysis of the political, social, economic and cultural transformation with respect to the internal and external political developments and their actors, the evaluation of the historical stages of the establishment of the modern Turkish state as a reference of solution and comparison for current debates in Turkish society and politics. The understanding of historical dynamism of change in Turkish politics and society.

### **Sports Nutrition (3 ECTS)**

Interaction between exercise, health and nutrition, energy and macro-nutrient requirements of athletes, micro-nutrient requirements of athletes, nutrition characteristics of before, during, after competition and training, importance of liquid consumption, ergogenic aids, body composition and weight management, special condition (women, child, vegetarian) nutrition.

