

**ISTINYE UNIVERSITY**  
**FACULTY OF HEALTH SCIENCES**  
**DEPARTMENT OF PHYSIOTHERAPY AND REHABILITATION**  
**COURSE DESCRIPTIONS**

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

**FZT 111- Anatomy I (5 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.

**FZT 112 – Biochemistry (3 ECTS)**

Learning the basic concepts of biochemistry, comprehend the biochemical properties of biomolecules and their building blocks, learning the functions of enzymes, hormones, vitamins and minerals, establishment of the relation of their deficiencies and excesses with diseases, comprehension of metabolic events and evaluation of metabolic parameters, proper test selection, sampling paths and issues to be considered.

**FZT 113 - Physics (2 ECTS)**

Teaching of the basic subject of physics which are physical quantities, kinematics, mechanics, work, power, energy, electromagnetism and radiation application in medicine.

**FZT 114 - Introduction To Physical Therapy And Rehabilitation (2 ECTS)**

In this course, rehabilitation team and working principles are described. An introduction is made regarding role of physiotherapist in rehabilitation team, ethical principles, measurement and treatment techniques related with the occupation. Disability concept is discussed. Special principles for children, adults and elderly are focused.

**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.

### **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.

### **FZT 116 – Physiology I (3 ECTS)**

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

### **ING 111 - General English (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.

### **SBF 118 - First Aid (3 ECTS)**

Having self respect, social & environmental sensitiveness and responsibility, adaptation capacity, active, rationalist, respecting ethics, using time effectively, ability to work as a team member

### **SBF 112 - Athlete Health (3 ECTS)**

Giving information to the students of the Faculty of Health Sciences about synthesis, breakdown and metabolism disorders in substances in human metabolism. Explain the case of physical activity, exercise and sport. Define the value of nutrition on athletes. Studying the interaction between sport and health. Describe the effects of genetically and environmental factors on sportive performance. Applications - Paper discussions

### **Health Occupation Ethics (3 ECTS)**

Ethical concepts, principles, boards, patient rights, professional health worker-patient relationship, problems related to the beginning and end of life, death, organ transplantation and euthanasia, HIV and infectious diseases.

### **Histology- Embriology (3 ECTS)**

At the end of this course, the student will learn the histological structure of the cells and basic tissues in the human body, their relationship with human anatomy and physiology, embryonic development of musculoskeletal system and defects.

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

### **FZT 121 – Anatomy II (5 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.

### **FZT 122 – Pathology (2 ECTS)**

Basic Concepts in pathology, cellular injury and adaptation, acute and chronic inflammation, cellular response to injury and wound healing, hemodynamic disorders, immune system diseases, neoplasia, genetic and pediatric diseases, environmental and nutritional diseases, pathology of infectious diseases, bone and joint diseases, soft tissue tumors, peripheral nerve and muscle diseases, hypertension, central nervous system diseases.

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

Cardiovascular system physiology, blood physiology, respiratory system physiology, gastrointestinal system physiology, endocrine system physiology, renal physiology.

### **FZT 123 - Development Of Movement And Function (4 ECTS)**

In this course, development of normal movement and function are described starting from the intrauterine period. Terminology and concepts related to normal movement and function development, development of normal and abnormal movement and function, development of sensation and reflex, steps of motor development are discussed. Transformation of these knowledge to pediatric physiotherapy and rehabilitation applications are enabled.

### **FZT 115 - Psychosocial Rehabilitation (3 ECTS)**

Introduction of psychosocial rehabilitation, psychosocial rehabilitation after accidents, stress and posttraumatic stress disorder, depression and means of dealing with it, psychosocial rehabilitation in visually handicapped people, psychosocial rehabilitation in people with hearing defects, psychosocial rehabilitation in physically handicapped people, psychosocial rehabilitation in disabled children and their families, psychosocial rehabilitation in people with chronic diseases.

### **Basic Knowledge And Technology (2 ECTS)**

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

### **Electrophysical Agents And Hydrotherapy ( 2 ECTS)**

The main aim of the course is to provide the students with the physical principles of hydrotherapy methods, physiological effects, application methods, indications and counter indications, basic information about the hazards and application examples.

### **ING 121 - 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.

### **SBF 118 - First Aid (3 ECTS)**

Having self respect, social & environmental sensitiveness and responsibility, adaptation capacity, active, rationalist, respecting ethics, using time effectively, ability to work as a team member

### **SBF 124 - Sexual Health (3 ECTS)**

Giving information to the students of the Faculty of Health Sciences about sexual health. Present definitions of social judgments about sexuality. Develop opinions about sexuality, Also involves, to protect and improve the sexual health of himself and the community to provide students with the knowledge and skills.

### **SBF 112 - Athlete Health (3 ECTS)**

Giving information to the students of the Faculty of Health Sciences about synthesis, breakdown and metabolism disorders in substances in human metabolism. Explain the case of physical activity, exercise and sport. Define the value of nutrition on athletes. Studying the interaction between sport and health. Describe the effects of genetically and environmental factors on sportive performance. Applications - Paper discussions

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

#### **Electrotherapy 1 (3 ECTS)**

Methods for the use of low frequency currents in different pathological conditions will be examined. To teach proper electrotherapy methods in physiotherapy approaches.

#### **Physical Measurement and Evaluation (4 ECTS)**

The basic principles of the course, posture analysis (anterior, lateral and posterior posture analyzes), shortness tests, flexibility and evaluation, anthropometric measurements (circumference, length, diameter and fat tissue measurements), goniometer and normal joint movements (NEH) evaluation, muscle strength and evaluation methods.

#### **Manual Approaches 1 (4 ECTS)**

This course aims to teach the basic principles of different massage techniques, the effects of massage on human body, different body parts and massage applications for different pathologies.

#### **Kinesiology And Biomechanics 1 (3 ECTS)**

Definition of kinesiology, movement and movement types, mechanical properties and pathokinetics of the tissues in the body, definition of application areas of biomechanics and biomechanical principles, explanation of specific biomechanical principles in the body, examination of biomechanics of individual joints.

#### **Clinical Neuroanatomy (2 ECTS)**

In this course, nervous system structures, the relationship with the function is described. To be able to understand the anatomical wisdom access, cause-and-effect relationships with the diseases that the student has encountered in the field of physiotherapy and rehabilitation.

#### **History Of Atatürk's Principles And Revolution 1 (2 ECTS)**

In this course, Turkey's modernization process is explained.

#### **Internal Medicine (3 ECTS)**

Medical The diagnosis and treatment of diseases related to physiotherapy are learned from the diseases in the departments of Rheumatology, Cardiology, Chest Diseases, Neurology and Pediatric Diseases in Internal Medicine. You have information about physiotherapy and rehabilitation programs.

### **Pharmacology (2 ECTS)**

The student learns the drugs used in the clinic and the general effects and the points to be noticed during physiotherapy and rehabilitation applications.

### **Manifesto Of İstinye (1 ECTS)**

### **Medical English 1 (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

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

### **Electrotherapy II (3 ECTS)**

Methods for using high frequency currents in different pathological conditions will be examined. The aim of the course is to teach the right electrotherapy methods in physiotherapy approaches.

### **Treatment Movements (5 ECTS)**

Exercises for normal joint movements, exercise types, exercise positions, exercise for pelvic region and lumbar vertebra regularity exercises, front and side abdominal strengthening exercises, William's flexion exercises, stretching exercises for pectoral muscles, thoracic and thoracic exercises bodice exercises, isometric exercises, relaxation exercises, scoliosis, principles of three-dimensional treatment method of scoliosis, traction. The exercises for cervical vertebrae and shoulder girdle uniformity, Codman exercises, stretching and strengthening exercises for disrupting the smoothness of the lower extremities, Burger-Allen exercises.

### **Manual Approaches 2 (4 ECTS)**

The aim of this course is to teach mobilizing techniques and basic principles and different body parts and mobilizing applications for different pathologies.

### **Kinesiology And Biomechanics 2 (3 ECTS)**

The aim of this course is to enable students to distinguish between normal and pathological marches, to know the mechanical and pathomechanical properties of joints, and to use the theoretical knowledge on these topics in clinical practice.

### **Surgical Sciences (3 ECTS)**

Clinical orthopedic and traumatological problems, cerebral and nerve diseases, such as surgical issues is intended to gain competence for students.

### **History Of Atatürk's Principles And Revolution 1 (2 ECTS)**

This is followed by students, Kuva-yi Milliye and Facades (Adana, Antep, Maras, Urfa), the establishment of the Regular Army and the Western Front, the wars that changed the history of Turkey, the abolition of the Sultanate, the establishment of the Republic of Turkey, Establishment of Turkish History Institution and Turkish Language Institution and Atatürk Principles

### **Exercise Physiology (3 ECTS)**

Physiological effects of exercise and sport on body systems, physiological mechanisms that play a role in the development of performance, blood pressure, muscle, respiration, exercise adaptation to the cardiovascular system, metabolism changes in exercise, acid-base balance, fatigue formation and fatigue effects on the individual, environmental factors, and evaluation of the condition, advanced examination of the topics

### **Medical English 2 (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

### **Manifesto Of İstinye (1 ECTS)**

### **Summer Internship I (0 ECTS)**

Summer internships provide students with opportunities to observe in the clinical environment

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

### **Neurophysiologic Approachments (5 ECTS)**

Technical Features of Neuromuscular Facilitation, Neurophysiological Basis, Usage Objectives and Indications. Practical expression of Proprioceptive Neuromuscular Facilitation patterns and techniques.

### **Orthopedic Rehabilitation (3 ECTS)**

The aim of the course is teaching the students physiotherapy and rehabilitation in orthopedic diseases

### **Physiotherapy And Rehabilitation In Sports (3 ECTS)**

Prevention of sports injuries, first aid in sport injuries, pre-treatment, definite treatment, rehabilitation principles, soft tissue injuries, grossing of upper and lower limbs and banding practices. The main objective of the course is to teach the duties and responsibilities of the sports physiotherapist, the authority in the organization and clubs, the principles of protection from injuries for each sport, treatment and rehabilitation approaches.

### **Pulmonary Rehabilitation (3 ECTS)**

Definition of pulmonary rehabilitation, obstructive and restrictive pulmonary diseases, pulmonary rehabilitation assessment and treatment methods, physiotherapy and rehabilitation in pulmonary surgery, respiratory aids in intensive care unit, oxygen therapy, aspiration, physiotherapy and rehabilitation in intensive care unit, chest physiotherapy and rehabilitation in neonatal and pediatric patients comprising.

### **Pediatric Rehabilitation (3 ECTS)**

The necessary theoretical and practical information about pathologies (cerebral palsy, mental motor retardation, congenital torticollis and neuromuscular diseases) in pediatric rehabilitation can be acquired, the necessary skills are developed to evaluate the patients, establish the appropriate physiotherapy program and determine the necessary approaches for rehabilitation.

### **Orthotics And Rehabilitation (3 ECTS)**

To inform physiotherapy and rehabilitation students about orthosis practices and to make students use orthosis in rehabilitation of patients.



### **Rheumatological Rehabilitation (3 ECTS)**

Students are provided with general information about rheumatologic diseases, enabling them to continue the evaluation, treatment and rehabilitation process competently.

### **Occupational Treatment (3 ECTS)**

Examination of occupational and occupational approaches in the methods of diagnosis and evaluation of general performance in occupational and occupational therapy and sample applications

### **Introduction To Translation I (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

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

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

### **Neurophysiologic Approachments II (5 ECTS)**

Physiotherapy evaluations after cerebro vascular events and practical presentation of neurophysiological approaches used in stroke rehabilitation. To identify the functional deficiencies of stroke patients, to decide on appropriate rehabilitation approaches and to develop the ability to perform them effectively.

### **Cardiac Rehabilitation (4 ECTS)**

Major cardiovascular system diseases and pathophysiology, cardiovascular assessment, early rehabilitation program, immobilization and effects on body systems, external patient and secondary prevention program, exercise education, treatment and education of replaceable risk factors, protection and long term follow-up, revascularization and valve surgeries, physiotherapy and rehabilitation in peripheral vascular diseases.

### **Neurologic Rehabilitation (5 ECTS)**

Degenerative, idiopathic, traumatic and infectious diseases of nervous system and theoretical and practical applications of special physiotherapy and rehabilitation approaches applied for these diseases

### **Prosthesis And Rehabilitation (3 ECTS)**

Amputation reasons, amputation levels, congenital amputations, partial hand and foot prostheses, prosthesis used according to upper and lower limb amputation levels, static and dynamic adjustment of prosthesis and stump-socket conformity, control mechanisms, myoelectric prosthesis and amputee rehabilitation

### **Geriatric Rehabilitation (2 ECTS)**

To explain the physiological changes that occur with age progression, to make the students understand the applications of the evaluation and exercise programs for the healthy and handicapped elderly, to make them aware about healthy aging and quality of life

### **Special Topics In Physiotherapy (3 ECTS)**

Includes physiotherapy and rehabilitation practices in special settings and students learn physiotherapy and rehabilitation practices in special situations.

### **Manifesto Of İstinye (1 ECTS)**

### **Introduction To Translation II (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

### **Biostatistics (3 ECTS)**

Definition and basic concepts of biostatistics, Data collection and presentation techniques, Probability distributions, Sampling, Sampling error, Central tendency measures, Change measures, Hypothesis tests, Regression and correlation, Statistical package programs.

### **Physiotherapy In Women Health (2 ECTS)**

This course aims to give necessary knowledge to students about obstetric and gynecological rehabilitation.

### **Summer Internship I (0 ECTS)**

Summer internships provide students with opportunities to observe in the clinical environment

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

#### **Clinical Treatment I (14 ECTS)**

The evaluation of the patient with different diagnoses and the determination and implementation of the physiotherapy and rehabilitation program.

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

The bases of medical research methods. Planning of a research in the field of physiotherapy and rehabilitation.

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

To show the features of Turkish language, to show the rules of operation, To develop students' vocabulary through written and oral texts; To obey the rules of spelling, to give students the habit of using punctuation marks locally; To give students the habit of reading books; To provide students with scientific, critical, inquisitive, interpreting, creative and constructive thinking habits.

#### **Medical English 5 (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

#### **Clinical Problem Solving I (2 ECTS)**

In the field of physiotherapy and rehabilitation, group studies were carried out on cases with different clinical characteristics, Literature scanning, Analysis of the problem and the analysis of the problem and inadequacy, listing problems under obstacle headings, Discussion of solutions for physiotherapy-rehabilitation using clinical problem solving, reasoning and physiotherapy skills Definition of well-being physiotherapy-rehabilitation program

#### **Seminar I (3 ECTS)**

The student prepares a seminar on different diagnoses and the determination and implementation of the physiotherapy and rehabilitation program.

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

### **Clinical Treatment II (14 ECTS)**

The evaluation of the patient with different diagnoses and the determination and implementation of the physiotherapy and rehabilitation program.

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

Realization of the planned work in the field of physiotherapy and rehabilitation. At the end of the lesson, each student will have made the planned work and made it ready for publication.

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

To be able to identify the elements of the cümle and their importance in order to make good, good and good sentences; to be able to read and examine works related to the world of literature and thought and to apply rhetoric; to know the written composition types and to make applications about them; to be aware of language mistakes and to be able to correct them, to know the rules to be followed in the preparation of scientific writings and to apply them. To be able to improve the ability of the student to speak and write well, based on selected texts from Turkish and world literatures and thought history.

### **Medical English 6 (3 ECTS)**

The use and understanding of English terms related to articles and physical therapy.

### **Clinical Problem Solving II (3 ECTS)**

In the field of physiotherapy and rehabilitation, group studies were carried out on cases with different clinical characteristics, Literature search, The analysis of the problem with the assessment of the case and the inability, listing problems under obstacle headings, Discussion of solutions to physiotherapy-rehabilitation using clinical problem solving, reasoning and physiotherapy skills Determination of appropriate physiotherapy-rehabilitation program by discussion

## **Seminar II (3 ECTS)**

Preparing a seminar on subjects related to rehabilitation studies in Orthopedics, Neurology, Neurosurgery, Pediatrics, Surgery, Chest Diseases, Cardiology, Chest-Heart and Vascular Surgery, Geriatrics, Obstetrics, Rheumatology, Internal Medicine, Infection, Anesthesia and Reanimation