



ANTALYA BİLİM UNIVERSITY
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF PHYSIOTHERAPY AND REHABILITATION
EDUCATION PLAN, COURSE CONTENT

1ST YEAR (1ST SEMESTER) FALL SEMESTER

COMPULSORY COURSES

FTR 113 Introduction to Physiotherapy and Rehabilitation, and Ethics (2-0-2) ECTS 3

Definition of physiotherapy and rehabilitation, authority and responsibilities, its contents and development, physiotherapy and rehabilitation education and fields of application, professional applications, teamwork, definition of deontology, ethical principles of physiotherapy and rehabilitation, ethical problems and solutions.

FTR 115 Anatomy I (2-2-4) ECTS 5

The course covers the normal anatomy and functions of the structures that form the human body. Basic notions about the human anatomy, introduction to anatomy, anatomic terminology, locomotor system (Bones-Joints-Muscles).

FTR 117 Physiology I (2-1-3) ECTS 4

Cell tissue, bone, cartilage, muscle physiology, blood physiology, peripheral nervous and central nervous system physiology.

HIST 101 Atatürk's Principles and History of Turkish Revolution I (2-0-2) ECTS 2

Concepts and Ottoman-Turkish modernization, French Revolution & Industrial Revolution, First Steps to the Formation of the Modern State 1789-1839, Tanzimat Reform Era 1839-1876, Declaration of the First Constitutional Era and the Period of Abdulhamit the Second

1876-1908, Ottoman Economy in the 19th Century, Young Turks, Era of National Struggle, Treaty of Lausanne and Review of the Lausanne Peace Treaty, First Years of the Republic 1923-1930.

TURK 101 Turkish Language I (2-0-2) ECTS 2

Punctuation marks and spelling rules, birth of the language and its importance, languages in the world: language families, world languages in terms of their structures and origins, historical periods of the Turkish language, contemporary Turkish dialects, grammar and subsections: sounds of Turkish and their classification, phonetic changes, phonetic events, the methods of adding words to Turkish and its history: words in terms of their structures, word roots and affixes, derivational affixes: verb to verb, verb to noun, noun to noun, noun to verb, inflectional suffixes: case affixes, words in terms of their meanings, verbal, adjectives, pronouns.

FTR 119 Physics (2-0-2) ECTS 3

Measurement, Vectors, Physical quantities, One and two-dimensional motion, Newton's laws- laws of motion, Work, power, energy, Conservation of energy, Conservation of momentum, Mechanical knowledge, Solid bodies and center of mass, equilibrium, principles of elasticity, Overview of heat and temperature, Basic electrical information (Electric Field, elect potential, circuits, etc.), Magnetic Field, Light and properties of light.

FTR 121 Psychosocial Rehabilitation (2-0-2) ECTS 3

Definition of the concepts used in the field of psychosocial rehabilitation, psychosocial processes and adaptation stages after accidents, stress and posttraumatic stress disorder, psychosocial rehabilitation for problems that are encountered after traumatic injuries, psychosocial rehabilitation in neurologic disorders, psychosocial rehabilitation for problems that cause disability in children, psychosocial rehabilitation in progressive chronic diseases and geriatric patients, psychosocial process in the physically disabled, psychosocial process in

families with a disabled child, psychosocial process in the visually disabled, psychosocial process in people with hearing-speech disabilities, depression and ways to cope with it.

INGL 101 English I (2-0-2) ECTS 2

It includes teaching students beginner level English grammar and vocabulary, as well as reading, writing, listening and speaking skills.

AREA ELECTIVE COURSES

FTR 123 Communication Skills (2-0-2) ECTS 3

Definition, components and types of communication, communication barriers, methods of improving communication, communication problems in young people, communication among health care personnel, basic components and models of communication with patients, basics of patient-physiotherapist communication, basic techniques to be used in conversations with patients, communication with children and the elderly, communication in the presence of unusual disorders and situations.

FTR 125 Occupational Health and Safety (2-0-2) ECTS 3

Definition and historical development of the course of Occupational Health and Safety, general significance of occupational health and safety, costs of occupational accidents and diseases for employees, employers and national economy, causes of occupational accidents and diseases, precautions that can be taken against occupational accidents and occupational health problems, institutions that are responsible for occupational health and safety in Turkey, problems that are encountered in applications of occupational health and safety in Turkey, legislation regarding occupational health and safety, the responsibility of employers to protect employees, sources and types of the liabilities of employers, legal nature of the liabilities of employers, conditions of the liabilities of employers and comparison of these liabilities with other types of liabilities, suits for pecuniary compensation arising from occupational accidents

and diseases and compensation for loss of support in the event of the death of an employee, suits for non-pecuniary compensation arising from occupational accidents and diseases and public law sanctions to be applied to employers who do not take necessary precautions for occupational safety, the organizational structure and implementation of occupational safety inspection in Turkey.

1ST YEAR (2ND SEMESTER) SPRING SEMESTER

COMPULSORY COURSES

FTR 118 Anatomy II (2-2-4) ECTS 5

The second part of the course covers the basic concepts of the human anatomy; respiratory system, nervous system, circulatory system, digestive system, sensory organs and systems, excretory system, pelvis-perineum reproductive system, endocrine system.

FTR 120 Physiology II (2-1-3) ECTS 4

Respiratory Physiology, Energy and Metabolism Physiology, Cardiovascular System Physiology, Sensory Physiology, Digestive Physiology, Endocrine and Excretion Physiology.

HIST 102 Atatürk's Principles and History of Turkish Revolution II (2-0-2) ECTS 2

A brief overview of the history of 20th Century, Political Parties in the Turkish Grand National Assembly, Government-Opposition Relations, Parties: Republican People's Party, Progressive Republican Party, Liberal Party; Democratization of the political and social life, World War II and Turkey, Transition to Multi-Party life and democracy in Turkey, Era of Democrat Party, Unsteady Coalitions, Economic Developments and Social Conversion, Memorandum to Military Coup, Turkey after the Military Coup of September 12, Turkey in 90's and 2000's.

TURK 102 Turkish Language II (2-0-2) ECTS 2

Punctuation marks, spelling rules, definition of composition, its purpose, ways to write a good composition, methods to write a composition, features of narration, ambiguities, forms and types of narration

INGL 102 English II (2-0-2) AKTS 2

It includes teaching students beginner level English grammar and vocabulary, as well as reading, writing, listening and speaking skills.

FTR 122 Disability and Public Health (2-0-2) ECTS 3

This course covers the definitions about normalcy, disability and the concept of health, factors that affect health and assessment of health, models of disability, medical and social model, effects of disability on human development and family system, classification of disabilities, the visually impaired, the orthopedically disabled, people with hearing/language and speech disabilities, the mentally handicapped, the psychologically and emotionally disabled, relationship between the disabled and the society and rights of the disabled, necessary approaches/models to improve health, community-based rehabilitation, international classification system in physiotherapy, occupational health, educational and environmental health, protective physiotherapy and rehabilitation.

AREA ELECTIVE COURSES

FTR 124 First Aid (1-1-2) ECTS 3

Principles of patient care, health and injuries, investigation of the scene of the incident, examination of the patient and the wounded, basic life support (adults), basic life support (children), bleeding, laceration and shock, blockage of the airway, intoxication and first aid, animal bites and stings, first aid in fractures, dislocations and sprains, loss of consciousness and coma, patient handling techniques, burns.

FTR 126 Biochemistry in Physotherapy (1-0-1) ECTS 3

Chemical bonds, water and buffers, amino acids and proteins, enzymes and coenzymes, carbohydrates, lipides and biologic membranes, signal transmission mechanisms, hormones, basic concepts of bioenergetic and metabolism, carbohydrate metabolism, lipide metabolism, amino acid and protein metabolism, metabolism integration, Basic concepts in clinical biochemistry, clinical edema, Laboratory diagnosis of inflammation, Urine, clinical laboratory examination of muscles, general blood biochemistry.

FTR 128 Histology in Physiotherapy (1-0-2) ECTS 3

Introduction to histology and histologic methods, epithelial tissue, connective tissue, cartilage tissue, bone tissue, blood tissue, muscle tissue, nerve tissue, lymphoid tissue.

FTR 130 Pathology in Physiotherapy (1-1-1) ECTS 3

Introduction to pathology, pathological examination, laboratory methods and live disease factors, hemopoietic system diseases, tumor pathology, heart diseases, infection-necrosis-thrombus-embolus-infarction, respiratory diseases, female genital system diseases and breast diseases, gastrointestinal system diseases, endocrine system diseases, urinary and male genital system diseases, gastrointestinal system diseases, bone and soft tissue diseases, skin diseases.

2ST YEAR (1ND SEMESTER) FALL SEMESTER

COMPULSORY COURSES

FTR 221 Basic Assessment and Evaluation in Physiotherapy (1-3-3) ECTS 4

Taking A story in Physiotherapy and Rehabilitation (recording age, height, weight, work/game /school status, development, environment, family history, medical history, functional status, activity level), observational analysis (skin color, skin integrity, scar tissue, edema presence), body structure, posture (dynamic, static, voluntary), anthropometric measurements, muscular strength, muscular endurance, flexibility, range of motion (passive, active, functional), coordination, assessment and interpretation with basic measurement and evaluation methods It is aimed to gain competence.

FTR 223 Manipulative Therapy I (1-3-3) ECTS 4

The mechanical, physiological, psychological, and reflex effects of the original massage techniques (classical massage, connective tissue, therapeutic massage, manual lymph drainage) and the evaluation methods to be used in determining the post-application effectiveness and the practical applications of these methods are taught. Indications and contraindications of the methods to be taught; In the biopsychosocial context, it is aimed to provide patient safety with clinical samples and to gain the ability to decide on the effective technique with evaluation and analytical approaches.

FTR 225 Electrotherapy I (1-3-3) ECTS 4

The indications, contraindications, usefulness and application forms of electrotherapeutic and electrophysical agents (iontophoresis, TENS, interferential currents, pharyngeal stimulation, high voltage galvanic stimulation, neuromuscular electrical stimulation, electrical muscle stimulation, biofeedback, etc.) that will support of evidence based physiotherapy and rehabilitation program and interpretation of the electrophysiological responses of injured peripheral nerves will educate in the course.

FTR 227 Heat-Light and Hydrotherapy (1-2-2) ECTS 3

Evaluation of pain physiology and parameters (type, severity, frequency, localization, pattern, style reasons), inflammation, soft tissue healing process, effects of immobilization, degeneration and regeneration processes; Review of superficial hot (infrared, hot pack, fluidotherapy, paraffin, ultraviolet etc.), cold applications (ice massage, cryotherapy, cold pack etc.), laser and hydrotherapy (opposite bath, pools, whirlpool, hot springs) methods used in physiotherapy and rehabilitation and Basic knowledge and application methods on physical principles, physiological effects, application methods, indications, contraindications and dangers with sample applications are covered within the scope of the course with examples.

FTR 229 Movement and Functional Development (1-1-2) ECTS 3

Terminology and concepts related to normal movement and function development, Development Theories, Development of normal and abnormal movement and function, Reflex and sensory development, Motor development stages, infant development psychomotor development, motor organization levels, neonatal evaluation, pathological reflexes, Normal development of the child from prenatal to adolescents process, pediatric neurological examination, spinal and brainstem reflexes, midbrain correction reactions, cortex level, balance reactions, motor development tests, reflex, and sensory development, babies at risk, hypotonic baby, cerebral palsy.

FTR 231 Biomechanics and Kinesiology I (2-1-3) ECTS 3

Movement and mechanical principles, biomechanics and pathomechanics of bone, muscle, collagen, cartilage and soft tissue, general mechanical properties of body joints, balance, orientation planes and coordinates, and normal and pathological walking are covered in the course.

FTR 233 Neurological Sciences (2-0-2) ECTS 3

In children and adults, neurological evaluation, medulla spinalis diseases, cerebrovascular diseases, extrapyramidal system diseases, cerebellar system diseases, neuromuscular diseases,

MS, Parkinson, polio, Guillain barre, peripheral system and diseases, nerve and muscle degeneration and regeneration, electrophysiological tests (EMG, nerve conduction studies, evoked potentials, EEG).

AREA ELECTIVE COURSES

FTR 235 Functional Neuroanatomy (2-0-2) ECTS 3

To provide the characteristics and functions of the central, peripheral, and autonomic nervous system to be understood; It is aimed to gain the ability to evaluate the cranial and peripheral nerve integrity and to distinguish the dysfunctions that may develop as a result of the dysfunction of these neuroanatomical structures.

FTR 237 Orthopedics (2-0-2) ECTS 3

Fractures, dislocations, Evaluation and treatment of orthopedic problems in the upper extremity (shoulder girdle- (arm and elbow-forearm and hand), Introduction to arthroplasty (shoulder, hip, knee, ankle, small joint), Children's orthopedics, Hip, knee, Evaluation and treatment of orthopedic problems in the foot-ankle joint, Amputations, Evaluation and treatment of orthopedic problems in the spine, Posture disorder (scoliosis-kyphosis-chest deformities), Orthopedic tumors.

2ST YEAR (2ND SEMESTER) SPRING SEMESTER

COMPULSORY COURSES

FTR 222 Basic Exercise Practice (1-3-3) ECTS 3

Joint range of motion exercises, in-bed exercises, tilt table, stretching exercises, strengthening exercises (head, neck, waist, extremity), isokinetic exercises, aerobic exercises, relaxation exercises (breathing and movement strategies, relaxation techniques), open and closed-loop exercises, balance and deep sense exercises, plyometric / agility exercises, dynamic lumbar stabilization exercises, compression therapy, intermittent/continuous traction practices, and continuous passive motion (CPM) topics are covered in the course. In the course, it is aimed to provide the ability to plan and apply the necessary changes in the exercise protocol specific to the person and the society in accordance with natural or different therapeutic environments. In addition, exercise equipment such as free weights, balance boards, pilates balls, and exercise rubbers are covered in the course.

FTR 224 Manipulative Therapy II (1-1-3) ECTS 3

Functional anatomy, physiology, biomechanics and pathomechanics of joints and soft tissues; effects of immobilization; joint/soft tissue manipulation, mobilization, manual traction, and transverse friction techniques; basic features, indications, side effects, and contraindications; Basic measurement, evaluation, and different manual therapy applications on joint and soft tissue pathophysiology and healing phases; effects of manual techniques on muscle activity; principles of neuromotor and manual tactics and specific application principles to physiotherapy; In the biopsychosocial context, the ability to decide on the effective technique, position the patient and apply the technique with the evaluation and analytical approaches by ensuring patient safety with clinical examples are gained in the course.

FTR 226 Electrotherapy II (1-3-3) ECTS 4

Ultrasound, phonophoresis, shortwave diathermy, radar, microwave diathermy, magnetotherapy, biofeedback, ESWT, etc. to support the physiotherapy and rehabilitation

program. Determination of electrotherapeutic agents, application methods, and problem-solving skills are taught within the scope of the course.

FTR 228 Exercise Physiology (2-1-3) ECTS 3

Introduction to Exercise Physiology, Energy transfer systems in the body and exercise, Muscle Physiology in Exercise, Neural physiology and neural control of movement, Cardiovascular system and exercise, Circulation and blood adaptation to exercise, Endocrine system and body composition and exercise, Respiratory System and Exercise, Immune system and exercise Oxygen debt and deficit, Immunity in Exercise - Sudden Death, What is physical activity-Affecting factors-MET, its duration, its intensity, its evaluation, Measurement of energy capacity and energy expenditure in resting and physical activity, Exercise tests- Exercise tests applied in the clinic, Aerobic and anaerobic exercise training, recovery after exercise, thermoregulation and exercise, Underwater and high altitude physiology, Physiological evaluations in children, women and the elderly, Athlete heart.

FTR 230 Principles of Nutrition (2-0-2) ECTS 3

The importance of carbohydrates, proteins, lipids, vitamins and minerals in healthy nutrition, sources of carbohydrates, proteins, lipids, vitamins and minerals, daily intake recommendations, excessive intake, energy metabolism, the importance of water and electrolytes in bodywork, nutrition in special cases, the importance and evaluation of nutrients in healthy nutrition are covered in the course.

FTR 232 Biomechanics and Kinesiology II (2-1-3) ECTS 3

Columna vertebralis pathologies, anatomical and mechanical properties; The anatomical, kinematic and kinetic features of the pelvis, hip, knee, foot/ankle, shoulder-arm complex, elbow, hand-wrist, and the pathological conditions of the spine and their relations with each other are covered in the course.

FTR 234 Physiotherapy and Rehabilitation Professional Practice I (4 Weeks) (1-8-5)

ECTS 5

The four-week summer internship is aimed to improve their physiotherapy and rehabilitation application skills.

FTR 236 Neurosurgery (2-0-2) ECTS 3

Epilepsy, Neurological examination, Medulla spinalis diseases, Polyneuropathies, Extrapyrarnidal system diseases, Entrapment neuropathies, Demyelinating diseases, Cerebellar system diseases, Cerebrovascular diseases, Muscular diseases Central and Peripheral Nerve Surgery Approaches, Neurodiagnostic methods, cerebrovascular diseases, CIBA, KIBAS, head traumas, spinal traumas and tumors, surgery of peripheral nerves diseases, disc hernias, hydrocephalus, congenital and developmental central nervous system surgery approaches, adult and pediatric brain tumors, pain and spasticity surgery. In children and adults, neurological evaluation, medulla spinalis diseases, cerebrovascular diseases, extrapyramidal system diseases, cerebellar system diseases, neuromuscular diseases, MS, Parkinson, polio, Guillain barre, peripheral system and diseases, nerve and muscle degeneration and regeneration, electrophysiological tests (EMG, nerve conduction studies, evoked potentials, EEG).

AREA ELECTIVE COURSES

FTR 238 Internal Medicine Diseases (2-0-2) ECTS 3

Within the scope of internal diseases; Diabetes, obesity, calcium physiology, osteomalacia, osteoporosis, anemia, hypercalcemia, and musculoskeletal effects, thyroid diseases, and musculoskeletal system effects.

Cardiology; Hypertension, coronary artery disease, MI, heart rhythm disorders, congenital heart diseases, EKG, effort test.

Within the scope of chest diseases; Physical examination of the chest: Inspection, palpation, percussion, auscultation, chest radiography, symptoms and evaluation methods in respiratory diseases, bronchitis, bronchiectasis, asthma, COPD, cystic fibrosis, pulmonary embolism, respiratory function tests, pneumothorax, hemothorax, pulmonary effusion, tuberculosis lung cancers, etc ...