

**Physiotherapy and Rehabilitation Master's Degree
Course Content**

TH: Theoric hour, PS: Practical hour, Cr: Credit, C: Compulsory Op: Optional

FALL TERM	TH	PH	Cr	ECTS	C/ Op
Course Title: Clinical Study 1	4	4	4	12	C
Course Code: FTR 501					
Course Content: In this course, the student is expected to acquire research paper writing skills. Learns the steps such as creating a hypothesis, determining the purpose, creating the method process. Within the scope of this course, a research design is created and the ethics committee application is completed.					
Course Title : Specific Evaluation Methods for Musculoskeletal Problems in Physiotherapy and Rehabilitation	2	2	3	7	Op
Course Code: FTR503					
Course Content: The principles of assessment and evaluation specific to the musculoskeletal system, assessment methods specific to diseases, assessment in infants and children, athlete tests, neuropsychiatric diagnostic criteria, the use of technology in assessment and evaluation will be covered in this course.					
Course Title: Movement Analysis and Cortical Level Evaluation of Movement	3	0	3	5	Op
Course Code: FTR505					
Course Content: Kinesiological definitions (kinetics, kinematics, etc.), forces and balance, axes and planes, bone-joint-muscle-cartilage-collagen tissues, examination and evaluation of normal and pathological walking, joints in the body (spine, shoulder, elbow, hand and wrist) , pelvis and hip, knee, foot and ankle), movement and neuroimaging in pathological conditions will be discussed.					
Course Title: Advanced Exercise Physiology	3	0	3	5	Op
Course Code: FTR507					
Course Content: In this course, cardiovascular system and exercise, cardiovascular regulation and integration, effects of aerobic and anaerobic training on body systems, factors affecting maximal aerobic power, recovery, pulmonary system and exercise respiratory control, musculoskeletal system and exercise, membrane and muscle action potentials, nerve physiology , synaptic transmission, excitation–inhibition, neural control, organization of the spinal cord for motor functions, energy systems, exercise and hormonal system, mechanical and dynamic properties of soft tissue, effects of stretching exercises on myofibrils, connective tissue, flexibility and contractile components of muscle, evaluation of body composition will be explained					

Course Title: Applied Statistics					
Course Code:ENS502					
Course Content: Definition of statistics as a science includes summarizing data (lists, graphs, etc.), measures of distribution (range of distribution, standard deviation), probability, sample distribution (central limit theory), statistical estimation, analysis of variance, regression, correlation, nonparametric tests .	3	0	3	6	Op
Course Title: Innovations in Neurological Rehabilitation					
Course Code: FTR511					
Course Content: Examination of new treatment methods developed for the rehabilitation of neurological diseases in the light of current literature, gaining the ability to interpret the effects and validity of various evaluation and application methods in the field of physiotherapy rehabilitation with meta-analysis, problem-based physiotherapy approaches in neurological diseases, evidence-based physiotherapy in neurological diseases approaches, early rehabilitation approach, long-term planning, home rehabilitation, community-based rehabilitation practices, technological products used in neurological rehabilitation, auxiliary tools and equipment that increase independence will be examined. Within the scope of this course, subjects such as the cortical region effect of neurological rehabilitation approaches and brain mapping will be discussed.	2	2	3	7	Op
Course Title: Cognitive Behavioral Approaches in Physiotherapy					
Course Code: FTR513					
Course Content: The use of cognitive behavioral (BD) techniques in physiotherapy training is essential for successful rehabilitation of patients. Most of the patients undergoing physiotherapy receive treatment for muscle-joint injuries. Implementation of critical interventions such as restoring internal control of these patients, recognizing dysfunctional thoughts and replacing them with functional ones, and preventing avoidance behaviors have a positive effect on the success of the treatment. The aim of this course is to introduce physiotherapists to the basic principles of cognitive behavioral treatment approaches used in the field of physiotherapy.	2	2	3	7	Op
Course Title: Preventive Physiotherapy and Rehabilitation Approaches					
Course Code: FTR515					
Course Content: Physiotherapy methods used in the protection and development of health, the role of the physiotherapist in preventive health services, improving clinical decision-making skills in preventive physiotherapy methods during chronic diseases, new ideas and studies will be created by following the relevant current literature.	2	0	2	3	Op

Course Title: Hand Rehabilitation					
Course Code: FTR517					
Course Content: Functional anatomy of the hand, tissue healing processes, evaluation methods in different hand problems, rehabilitation strategies, multidisciplinary approach in hand rehabilitation and problem solving with case discussions will form the content of the course..	2	2	3	7	Op
Course Title : Different Exercise Techniques in Rehabilitation					
Course Code: FTR519					
Course Content: Functional exercises, physiology and timing will be covered in pathologies affecting the musculoskeletal and nervous system. The importance of exercise therapy in physiotherapy and rehabilitation, the place of exercise therapy in clinical decision-making, patient evaluation and strategies to create an effective exercise program based on motor learning principles, classification of exercise, its effects and principles, determining problems in normal joint movement, and planning and implementation of an exercise program for these problems, Planning and implementation of exercise programs for problems in different body parts will form the content of the course.	2	2	3	7	Op
Course Title: Preparation for Academic Journey					
Course Code: FTR521					
Course Content: What is an academic, how to become a scientist, scientific reading and understanding, working and idea development processes in physiotherapy rehabilitation, reading and writing research articles, creating and developing projects will be covered.	2	0	2	3	Op
Course Title: Innovations in Pulmonary Rehabilitation					
Course Code: FTR523					
Course Content This course includes appropriate measurement and evaluation methods for various and different diseases within the scope of pulmonary rehabilitation, and current physiotherapy and rehabilitation issues in pulmonary diseases.	2	2	3	7	Op
Course Title: Pediatric Rehabilitation I					
Course Code: FTR525					
Course Content: This course includes appropriate measurement and evaluation methods for various different diseases within the scope of pediatric rehabilitation.	2	2	3	7	Op
Course Title: Scientific Research Methods and Science Ethics					
Course Code: ENS501					
Course Content:	3	0	3	6	C

Research planning, sources of error in research, sampling methods, determining the appropriate sample size, types of research, writing a report, the concept of research ethics and related sub-concepts, the most discussed research ethics issues today, clinical research, non-interventional clinical research, animal experiments. Information and awareness will be raised about how scientific validity and reliability can be ensured, the most common research ethics violations and the methods to prevent them, and the ways to be followed in case of violations.					
Course Title: Thesis Study I	4	0	0	30	C
Course Code: FTR590.1					
Course Content Determining the thesis topic, scanning the domestic and international literature on the thesis topic, planning all dimensions of the research, developing the data collection tool, conducting the validity and reliability studies of the data collection tool, applying the data collection tool and evaluating the findings, reporting will be done.					

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SPRING TERM	TH	PH	Cr	ECTS	C/Op
Course Title: Clinical Study II	4	4	4	1 2	C
Course Code FTR502					
Course Content: In this course, the scientific study steps are completed by carrying out the research that was created within the scope of Clinical Study I and approved by the ethics committee. The student performs the statistical analysis and submits it to his/her advisor by writing the titles consisting of introduction, material method, conclusion and discussion and references.					
Course Title: Seminar	1	0	0	1	C
Course Code:FTR504					
Course Content Within the scope of this course, it is aimed to develop the presentation skills with the literature review, planning, data analysis and interpretation of the thesis.					
Course Title: Advanced Therapeutic Exercises	2	2	3	7	Op
Course Code: FTR506					
Course Content In this course, the application methods of therapeutic exercises in various diseases and disorders, the evaluation and treatment principles of endurance and performance disorders are discussed. The course covers the evaluation of patients with mobility and balance problems and teaching the principles of treatment, the treatment of patients with posture and movement disorders, the treatment approaches of postoperative patients, the use of therapeutic exercises in the treatment of arthritis, the therapeutic exercises for fibromyalgia and chronic					

fatigue syndrome. In addition, evaluation of respiration, the effects of exercise in patients with respiratory problems, evaluation of patients with scoliosis and scoliosis exercises, the concept of regional exercise and region-specific exercises, evaluation and rehabilitation of patients with amputations, posture evaluation during pregnancy, pre- and postnatal exercises are the other topics to be reviewed in this course. In this course, both peripheral and cortical effects of exercise, neuroimaging and brain mapping will be discussed.					
Course title: Orthopedic Rehabilitation					
Course code: FTR508					
Course content: In this course, in all orthopedic problems that require or do not require surgery, to develop the ability to discuss the evaluation methods and various physiotherapy and rehabilitation approaches in detail, to develop the ability to create the most appropriate physical therapy rehabilitation plan, to choose and apply treatment approaches, It is aimed to be able to analyze and discuss the current literature by following the current literature. Within the scope of this course, the relationship between proprioceptive sense and orthopedic rehabilitation will be discussed.	2	2	3	7	Op
Course title: Pain Theories Evaluation and Physiotherapy Approaches					
Course code: FTR510					
Course content: This course focuses on theories of pain, different clinical situations. It is aimed to learn the evaluation methods specific to pain caused by pain, its modifications for prevention and prevention of functional losses caused by pain, electrotherapy and exercise approaches that can be applied according to disease periods. The place of cognitive treatment approaches in pain control and current treatment approaches will be discussed.	2	2	3	7	Op
Course title: Neurodevelopmental Treatment Approaches					
Course code: FTR512					
Course content: The aim of this course is to examine neurodevelopmental treatment approaches. To develop the ability to plan and conduct high-evidence research on the mechanisms of action, application methods and superiority to each other and to interpret the results.	2	2	3	7	Op

Course title: Rehabilitation in Rheumatological Diseases					
Course code: FTR514					
Course content: In this course, revealing the rehabilitation needs in patients with different rheumatic problems, basic information about assessment methods and appropriate exercise approaches will be examined in practice. Evaluation methods used in rheumatic diseases will be discussed, and the determination of the treatment programs of the patients will be emphasized. Indicated and contraindicated physical therapy and electrotherapy modalities in rheumatic diseases will be explained, and the combined applications of selected treatment agents with exercise will be mentioned. Problems such as deformity, contracture and muscle weakness that they may encounter in certain rheumatic diseases will be examined according to the diseases, and the principles of prevention and treatment that can be taken will be emphasized.	2	2	3	7	Op
Course title: Neuroscience in Physiotherapy					
Course code: FTR516					
Course content: Neuroscience, brain and nervous system and their It is an interdisciplinary field that studies its functions. Fields of physiotherapy, such as neurorehabilitation and orthopedic rehabilitation, are in reciprocal exchange with neuroscience. Namely, information from these fields contributes to neuroscience, and information from neuroscience research improves neurorehabilitation and orthopedic rehabilitation. Motor development, control and learning; neuroplasticity; movement and proprioception are the main topics of the relationship between physiotherapy and neuroscience. The aim of this course is to establish the relationship between physiotherapy and neuroscience and to provide physiotherapists with the theoretical basis to work in the field of neuroscience.	2	2	3	7	S
Course title: Rehabilitation in Sports Injuries					
Course code: FTR518					
Course content: Most common foot, knee, spine, shoulder and elbow It includes the rehabilitation of sports injuries and return to sports.	2	2	3	7	Op
Course title: Evidence-Based Approaches in Physiotherapy					
Course code FTR520					
Course content: Evidence in scientific studies, studies and reviews will be included in order to examine and interpret the quality and content of physiotherapy rehabilitation studies and to obtain a critical view.	2	0	2	3	Op
Course title: Oral-Motor Rehabilitation Approaches					
Course code: FTR522					
Course content: Within the scope of the course, the anatomy of the orofacial region, physiological and functional characteristics, stages of motor development, conditions causing oral motor dysfunction and their evaluation, discussion of appropriate physiotherapy methods, literature review, project development and research will be included.	2	2	3	7	Op

Course title: Technology Use in Rehabilitation					
Course code: FTR524					
Course content: The logic and purpose of use of the technological devices used in physiotherapy rehabilitation will be discussed and studies that will develop the physiotherapy-technology relationship will be included.	2	2	3	7	Op
Course title: Rehabilitation in Spine Problems					
Course code: FTR526					
Course content: It includes injuries, diseases and surgeries involving the spine and evaluation and rehabilitation approaches specific to these conditions.	2	2	3	7	Op
Course title: Innovations in Cardiac Rehabilitation					
Course code: FTR528					
Course content: It includes appropriate measurement and evaluation methods for various and different diseases within the scope of cardiac rehabilitation, and current physiotherapy and rehabilitation issues in cardiac and various systemic diseases.	2	2	3	7	Op
Course title: Pediatric Rehabilitation II					
Course code: FTR530					
Course content: It includes physiotherapy and rehabilitation approaches in pediatric diseases that cause various and different diseases, disorders, disabilities and disabilities within the scope of pediatric rehabilitation.	2	2	3	7	Op
Course title: Thesis Study II					
Course code: FTR590.2					
Course content: Determining the thesis topic, scanning the domestic and international literature on the thesis topic, planning all dimensions of the research, developing the data collection tool, conducting the validity and reliability studies of the data collection tool, applying the data collection tool and evaluating the findings, reporting the research results will be carried out.	4	0	0	30	C