

ISTINYE UNIVERSITY
INSTITUTE OF HEALTH SCIENCES
DEPARTMENT OF PHYSIOTHERAPY AND REHABILITATION (THESIS)
COURSE DESCRIPTIONS

1st SEMESTER

Physiotherapy Seminar 1 | 2 ECTS

This course includes a detailed discussion of different methods and treatments applied in the field of Physiotherapy and Rehabilitation and it includes application innovations.

Clinical Practice In Physiotherapy And Rehabilitation 1 | 2 ECTS

Preparation of the cases, evaluation of the subjects in the group study, determination of the treatment approaches regarding evidence-based data, discussion in the course, organisation of the research, presentation of the research in the congress. Course objective is improving students clinical problem-solving ability by discussing within the group.

Research Methods And Ethics | 5 ECTS

To provide general information about research stages and research ethics to graduate students and to prepare them to do research. To ensure that students gain knowledge, awareness and sensitivity for ethics in research and publication and accordingly conduct researches and publish them. Research planning, sources of error in a research, sampling methods, determination of the appropriate sample size, research types, report writing. concept of research ethics, related concepts, controversial research ethics topics, clinical researches, non-interventional clinical researches, animal researches, frequently encountered research ethics problems and prevention methods, recognition of violation of ethics, what should be done.

ELECTIVE COURSES

Manual Therapy Approaches In Physiotherapy | 7 ECTS

Manual Therapy applications consist of different techniques of manually manoeuvres in addition to mechanical massage devices invented in the light of the technological developments. For these reasons there are the more number of massage techniques, and causing of the different effects, manual techniques are to be attractive and popular day to day. In this course, it will be taught effects, indications and contraindications of these techniques which are indispensable treatment approaches in the physiotherapy and rehabilitation and also improved suitable treatment techniques selecting skills and gained application skills.

Ethics And Professionalism In Physiotherapy | 7 ECTS

In this course, ethics, ethics concepts, biomedical ethical principles and their role in health system, patient rights and its importance in physiotherapy practice, professional behavior of physiotherapists are examined.

Complementary Treatments In Physiotherapy | 7 ECTS

In this course, complementary treatment approaches used in physiotherapy and rehabilitation will be given as theoretical and practical.

Advanced Upper Extremity Anatomy | 7 ECTS

The anatomical structures of upper extremity and their functions will be examined theoretically and practically.

Advanced Biomechanics | 7 ECTS

The basic biomechanical principles used in evaluation and treatment and the application of these principles in physiotherapy and rehabilitation applications, the application areas of biomechanics and biomechanical principles, the biomechanical principles specific to the structures in the body and the biomechanics of joints will be examined.

Evaluation of Pain and Physiotherapy Approaches | 7 ECTS

Physiological mechanisms of pain, the role of acute and chronic pain in different diseases, methods of pain assessment, basic information about the approaches used to deal with pain will be examined.

Physiotherapy approaches in women's health (7 ECTS)

Gynecological diseases and physiotherapy methods in these diseases will be discussed. Literature studies and innovations related to these issues will be followed.

Functional Assessment Methods in Orthopedics (7 ECTS)

Functional evaluation methods for surgery and pathology in all orthopedic problems that require or do not require surgery will be examined.

Advanced Neurophysiology (7 ECTS)

Introduction to nervous physiology, central nervous system organization, brain and behavior, thalamus, hypothalamus, basal ganglia, cerebellum, reticular formation, motor cortex and control of voluntary movements, reflex, autonomic nervous system, blood-brain barrier and cerebrospinal fluid, speech, learning Teaching of memory, pain mechanisms, sleep physiology.

Rehabilitation of Motion Disorders (7 ECTS)

Anatomy, physiology and pathophysiology of the basal ganglia, cerebellum and its connections, clinical features of these diseases, evaluation and physiotherapy rehabilitation approaches will be examined.

Method and Basic Principles in Exercise Test (7 ECTS)

Exercise tests in field and laboratory, monitoring methods, aerobic and anaerobic power tests, functional capacity and evaluation methods of physical activity will be examined in patients with cardiac and pulmonary disease.

Physiotherapy in intensive Care (7 ECTS)

Evaluation methods in intensive care patients, use of life support equipment in clinical follow-up and evaluation, mechanical ventilation, physiotherapy and rehabilitation practices, clinical decision-making.

Evaluation in Pulmonary Rehabilitation (7 ECTS)

The evaluation of the clinical characteristics of patients with pulmonary problems, such as clinical laboratory findings, pulmonary function tests and arterial blood gases will be examined in detail.

Cardiac Rehabilitation Assessment (7 ECTS)

The clinical characteristics of patients with cardiovascular problems, clinical laboratory findings and evaluation of vital signs will be examined in detail.

Clinical Problem Solving in Neurological Rehabilitation (7 ECTS)

The place and importance of clinical approaches based on problem solving in the field of neurological rehabilitation will be discussed and practice in clinical practice in different neurological diseases.

Clinical Problem Solving in Orthopedic Rehabilitation (7 ECTS)

Physiotherapy and rehabilitation methods applied in orthopedic diseases will be examined. The importance of clinical approaches based on problem solving in the field of orthopedic rehabilitation will be discussed and practice will be made for clinical applications in different orthopedic diseases. Topics will be covered as current studies supported.

Clinical Problem Solving in Pulmonary Rehabilitation (7 ECTS)

Physiotherapy and rehabilitation methods applied in pulmonary diseases will be examined. The importance of clinical approaches based on problem solving in the field of Pulmonary Rehabilitation will be discussed and practice will be made for clinical applications in different pulmonary diseases. Topics will be covered as current studies supported.

Cancer Rehabilitation (7 ECTS)

To teach the basic purpose of rehabilitation in cancer patients, to plan and implement appropriate physiotherapy-rehabilitation programs according to stages and to the patient, to produce pain relief in patients with cancer, to produce solutions for physical, functional and psychological problems, to be able to follow evidence-based studies on the subject.

Clinical Problem Solving in Cardiac Rehabilitation (7 ECTS)

Physiotherapy and rehabilitation methods applied in cardiac diseases will be examined. The importance of clinical approaches based on problem solving in the field of cardiac rehabilitation will be discussed. Topics will be covered as current studies supported.

Pediatric Rehabilitation (7 ECTS)

Research methodology and report process of clinical application in pediatric physiotherapy and rehabilitation approaches.

Clinical Problem Solving in Pediatric Rehabilitation (7 ECTS)

Physiotherapy and rehabilitation methods applied in pediatric diseases will be examined. The importance of clinical approaches based on problem solving in the field of pediatric rehabilitation will be discussed and practice will be made for clinical applications in different orthopedic diseases. Topics will be covered as current studies supported.

2nd SEMESTER

Physiotherapy Seminar 2 (3 ECTS)

This course includes a detailed discussion of different methods and treatments applied in the field of Physiotherapy and Rehabilitation and it includes application innovations.

Clinical Practice in Physiotherapy and Rehabilitation 2 (6 ECTS)

Preparation of the cases, evaluation of the subjects in the group study, determination of the treatment approaches regarding evidence-based data, discussion in the course, organisation of the research, presentation of the research in the congress. Course objective is improving students clinical problem-solving ability by discussing within the group.

ELECTIVE COURSES

Advanced Exercise Physiology (7 ECTS)

Physiological effects of exercise and sports on body systems, physiological mechanisms involved in the development of performance, blood, muscle, respiration, adaptation of the cardiovascular system to exercise, metabolism changes in exercise, acid-base balance, fatigue formation and fatigue effects on the individual, environmental factors, conditioning tests and evaluation of the condition, advanced examination of the subjects.

Performance Analysis (7 ECTS)

The examination of the physical performance tests in athletes, the application on the athletes and writing training programs according to the measurement results are included.

Early Physiotherapy After Orthopedic Surgery (7 ECTS)

The rehabilitation approaches that will be applied to hospitalized patients in the early period after orthopedic surgery will be reviewed.

Improving Physical Fitness and Performance (7 ECTS)

Students who complete the course will be able to understand how to use the physical fitness test parameters related to health and performance and to create personalized exercise prescription according to the data obtained as a result.

Evidence-Based Electrophysical Agents (7 ECTS)

Basic information about the methods of application of electrophysical agents used in physiotherapy, presentation levels and application examples, and practical applications. Evidence levels will be handled with the support of current studies.

Banding Techniques (7 ECTS)

In this course, the practical application of banding techniques that can be used in the prevention and treatment of sports injuries will be made and the effectiveness of these techniques in the literature will be discussed. Classical banding techniques and kinesiotape applications will be given.

Muscle Tone Disorders and Rehabilitation (7 ECTS)

Mechanism of muscle tone disorders, their effects on movement and function, evaluation methods and applied physiotherapy rehabilitation approaches are examined.

Neurodevelopmental Treatment Approaches (7 ECTS)

The effect mechanism of neurodevelopmental treatment approaches, the effects on the development of movement and function, the evaluation methods to be used in the clinical decision making process and the use of these approaches in the field of neurological rehabilitation will be examined.

Geriatric Rehabilitation (7 ECTS)

Physiological changes occurring with age progression and healthy aging for healthy and disabled elderly people with the necessary exercise and environmental regulation programs will be examined.

Evaluation Methods in Hand Rehabilitation (7 ECTS)

Evaluation of bone, joint and motor unit in hand and upper extremity muscle and nerve diseases, documentation of sensory and motor functions and practical application of these evaluation and casting methods.

Cardiovascular and Pulmonary Functions in Diseases (7 ECTS)

Cardiopulmonary anatomy, cardiopulmonary physiology, cardiopulmonary pathophysiology, cardiopulmonary involvement in systemic diseases, oxygen transport.

Rehabilitation in Rheumatic Diseases (7 ECTS)

Classification, definitions, effects of rheumatic diseases on musculoskeletal system, physiotherapy in rheumatic diseases, evaluation methods and appropriate rehabilitation approaches will be examined.

Cardiovascular and Pulmonary Rehabilitation Applications (7 ECTS)

Mobilization and exercise, positioning, physiological basis and clinical applications of airway cleaning techniques, coughing techniques, respiratory facilitation strategies, exercise testing and training in diseases, muscle training, patient training.

Neonatal and Pediatric Pulmonary Rehabilitation (7 ECTS)

In the neonatal and pediatric patients, service and intensive care environment, life support equipment used, monitoring, clinical problems, evaluation of neonatal and pediatric patients, physiotherapy and rehabilitation approaches, clinical decision making in different clinical problems comprising.

Research Methods and Biostatistics (7 ECTS)

Research planning, selection of research subject, screening of resources, determination of research objectives, determination of sample sampling, determination of data summarization techniques, selection of statistical analysis, scientific writing rules, and basic statistical concepts and methods of health special applications and applications Explain the basic concepts related to biostatistics, comprehend biostatistics and computer, recognize data collection methods, collect accurate and consistent data in the field of health, present the results with tables and graphs, have information about descriptive statistics, decide appropriate sampling method, parametric and non-parametric To learn hypothesis tests, to establish the appropriate hypothesis, to be able to select the appropriate test, to be able to make correlation and linear regression analysis, to make analysis with SPSS.

Neuromuscular Disorders and Rehabilitation (7 ECTS)

Lower motor neuron diseases, clinical types, differences from upper motor neuron diseases and physiotherapy rehabilitation methods in these diseases will be discussed.

Treatment Approaches in Hand Rehabilitation (7 ECTS)

Physiotherapy approaches in the treatment of hand and upper extremity muscle and nerve diseases will be examined.

Current Physiotherapy Approaches In Cerebral Palsia (7 ECTS)

Childhood disability group, analysis problem solving under directions of evaluation, constitute actual and advanced developmental physical therapy and rehabilitation and rehabilitation area, actual and technologic supported approaches , planning research.

Normal Motor Kinseiology (7 ECTS)

Information process examined the neural processes of motor control and learning steps and investigated re-learning methods in pathologies. To comprehend the neural control of movement, theories about learning of motor movement, mechanisms of movement disorders developed as a result of neurological pathologies and analyze the research on the neural control of movement and gain methodological application ability.

3rd SEMESTER

Master of Science Thesis Advisory-1 (4 ECTS)

Conducting the interviews with the counselor taking into account the interest of the student. The aim of this course is to plan the literatüre review by considering the thesis topic.

Thesis Study 1 (26 ECTS)

This courses cover the studies about the thesis.

4th SEMESTER

Master of Science Thesis Advisory-2 (4 ECTS)

Conducting the interviews with the counselor taking into account the interest of the student. The aim of this course is to plan the literature review by considering the thesis topic.

Thesis Study 2 (26 ECTS)

This courses cover the studies about the thesis.