Irbid National University
Physical Therapy Department

Course Description

General Chemistry (3 Cr. Hr.): 504113

Measurement and significant figures, chemical reactions, chemical calculations, gaseous state, thermochemistry, electronic structure and periodicity, chemical bonds, shapes of molecules, states of matter and attractive forces between molecules, physical properties of solutions.

General Biology (3 Cr. Hr.): 504111

This course focus on the concepts of science in general, this course will overview the major concepts of biology, including cells and cell processes, genetics, evolution, a survey of the diversity of life: microorganisms, animal anatomy and physiology, plant structure and function.

General Physics (3 Cr. Hr.): 504118

This course will familiarize the students with the basic concepts and principles of mechanics (the motion of the objects, laws of motion, work and energy), elasticity, and fluid dynamics. Describing the elasticity and general information about fluid dynamics, heat and temperature, waver (sound, electromagnetic).

Anatomy and Histology (2 Cr. Hr.): 504128

The purpose of this course is to aid students in acquiring a basic understanding of the structures of the human body and their relationships using a systems-based approach. Students will be introduced to anatomic terminology in order to facilitate this understanding. Knowledge of anatomy is a fundamental component of any health care profession, as well as many other disciplines in biology.
A study of the anatomical structure of the human body. Body structure will be studied by organ systems and will involve a balance between gross anatomical study and histology Form-function relationships will be emphasized.

Anatomy and Histology Lab (1 Cr. Hr.): 504129, ((co) 504128)

This course provides practical anatomy of the human body including anatomy of the skin, musculoskeletal system, nervous system, endocrine system, circulatory system, lymphatic system, respiratory system and urinary system. Additionally, understand structures of cells.

Human Physiology (3 Cr. Hr.): 504230

This introductory physiology course introduces basics concepts in physiology of human body. The course familiarizes students with basic definitions and principles related to physiology The course emphasizes the concept of internal environment and homeostasis and the concept of feedback in a biological system. It also helps students to understand body fluid and cellular physiology including membrane ionic basis of excitability, molecular mechanism and mechanics of contraction. The course gives an overview on the physiology and functions of nervous system, cardiovascular system, respiratory system, digestive and renal systems and the endocrine system. It prepare student to understand future disease process and pathophysiology.

Human Physiology Lab (1 Cr. Hr.): 504231, (co) 504230)

This course practical experience of functions of the various body systems with some clinical applications, including study of the respiratory system, circulatory system, circulatory system, urinary system, gastrointestinal system, endocrine system, muscles and nervous system. Where natural functions.

Pathology (3 Cr. Hr.): 504223

This course contains introduction to general and basic knowledge of diseases, their causes, pathogenesis, general morphological and changes at gross, microscopic and submicroscopic levels as well as the prognosis of the disease.

Psychology for Rehabilitation students (2 Cr. Hr.): 801422

This course presents an introduction to psychology and deals with mental and psychological diseases with a focus on the impact of injuries and disabilities on the psychological and social situation of patients and the role of the physiotherapist in improving the mental state of the injured.

Medical Rehabilitation Ethics (1 Cr. Hr.): 801220

This course is offered to physiotherapists with a focus on the role of the physiotherapist in providing the best and highest service to the patient, the patient's family and the community.

Musculoskeletal Anatomy (2 Cr. Hr.): 801202, ((pre) 504128)

This course covers in greater depth skeletal system, the skeletal muscles system, and the articular system. The course will discuss all aspects of anatomical dimension, functional dimensions and neural supplement related to it.

Musculoskeletal Anatomy practical (1 Cr. Hr.) 801203, ((co) 801202)

This course provides a detailed explanation and practical application in the lab of the structural system, the musculoskeletal system and the articular system of the anatomical, functional aspects and the study of the nerves and blood vessels that feed this device.

Anatomy of the nervous system (2 Cr. Hr.): 801317

The course includes the general layout of the nervous system, and a detailed study of anatomy of the brain and spinal cord, the ascending and descending tracts of the cord and the distribution of the cranial nerves, the vascular supply to the brain and the cerebrospinal fluid.

Anatomy of the nervous system practical (1 Cr. Hr.): 801318, ((co) 801317)

This course include general layout of the nerves system and details study off the anatomy of the brain and spinal cord, ascending and descending tracts of the cord and the distribution of the cranial nerves, vascular supply to the brain and cerebrospinal fluid.

Introduction to Physical Therapy (2 Cr. Hr.): 801108

This course introduces students to physical therapy, focusing on the role of physiotherapists in the prevention and treatment of disease, teaching, research, medical consultation and treatment of patients.

Kinesiology and biomechanincs (2 Cr. Hr.): 801110, ((co) 801108)

This theory course includes basic concepts and terminology of Kinesiology, It deals with different types of forces, analysis the human body motion kinetic and kinematic. It is also include understanding gait analysis, and natural biomechanics of bone and soft tissue under normal and pathological conditions.

Kinesiology and biomechanics practical (1 Cr. Hr.): 801111, ((co) 801110)

This course practical application in the laboratory of basic concepts and terminology of motion science. And deals with different types of forces and analysis and applications on the human body. Uses of mechanics in physical therapy. It also includes understanding walking analysis and natural biomechanics of bone and soft tissue under normal and pathological conditions.

Musculoskeletal Evaluation (1 Cr. Hr.): 801206, ((pre) 801110)

A principal course in which the students are trained on methods of assessment of the musculoskeletal system from physical therapy view. It includes the manual muscle testing for upper, lower extremities, trunk and neck muscles. Measurement of range of motion for body joints generally.

Musculoskeletal Evaluation practical (1 Cr. Hr.): 801207, ((co) 801206)

A practical course in which the students are trained on methods of assessment of the musculoskeletal system from physical therapy view. It includes the manual muscle testing for upper, lower extremities, trunk and neck muscles. Measurement of range of motion for body joints generally.

Therapeutic exercise (2 Cr. Hr.): 801234, ((pre) 801232)

This course provide introduction for therapeutic exercises and methods of use and application in physical therapy, include the different types of passive and active movements, the types of muscle effort and ways of strengthening the muscle groups or individually, and flexibility exercises, in addition to the practical training of students to apply different types of exercises.

Therapeutic exercise practical (1 Cr. Hr.): 801235, ((co) 801234)

This course introducing a practical information about therapeutic exercises and methods of use and application in physical therapy, include the different types of passive and active movements, the types of muscle effort and ways of strengthening the muscle groups or individually, and flexibility exercises, in addition to the practical training of students to apply different types of exercises.

Electro-Therapy and hydrotherapy (2 Cr. Hr.): 801304, ((pre) 801234)

This course includes types of electrical currents used to raise electrical nerve, muscle and physiological effects and therapeutic uses in addition to the risks and preventive measures and students are trained on how to use electrical appliances. It also includes physiological effects of hydrotherapy, its uses, dangers, and preventive measures in addition to ways of using water treatment devices, students are trained in the use of these devices.

Electro-Therapy and hydrotherapy practical (1 Cr. Hr.): 801305, ((co) 801304)

This course is a practical application for the types of electrical currents used to stimulate the nerves and muscles and its use as preventive measures. Students are required to practice on how to use therapeutic electrical appliances safely.

Musculoskeletal injuries and pathology (2 Cr. Hr.): 801321, ((pre) 801202)

This course introduces the musculoskeletal conditions that will be dealt with in physical therapy profession. These conditions range from congenital to acquired cases. We will go throw body sections and different joints, study evaluation, symptoms and specific test for special cases.

Neurology science (2 Cr. Hr.): 801307, ((pre) 504128)

This course discus a content about motor control processes by nervous system. It also provides detailed information about the common neurological diseases among adults, development and clinical picture.

Neurology science practical (1 Cr. Hr.): 801308, ((co) 801307)

This course provides practical issues and information on how to actually deal with the nervous system. It includes detailed description of the most common neurological diseases among adults, their development and clinical symptoms. It also focuses on acquiring and developing multiple methods for evaluating various neurological diseases.

Neuromuscular developments (2 Cr. Hr.): 801319, ((pre) 504230)

This course is designed to explore factors affecting motor and neural development across the life span as they relate to physical therapy. Different theories regarding motor behavior will be explored from the fetal period through the years of adulthood.

Manual Therapy (2 Cr. Hr.): 801311, ((pre) 801234)

This course provides theoretical approaches of manual therapy designed to teach students specific practical techniques to increase the level of joints movement of the upper and lower limbs, as well as increase the level of movement in the spine and maintain the level of normal movement in all joints of the body.

Manual Therapy practical (1 Cr. Hr.): 801312, ((co) 801311)

This course equipped students with a practice experience of the methods of manual therapy which designed to teach students specific practical techniques to increase the level of joints movement of the upper and lower limbs, as well as increase the level of movement in the spine and maintain the level of normal movement in all joints of the body.

Physical Therapy for Geriatric (2 Cr. Hr.): 801406, ((pre) 801232)

Detailed information in aging and physiological changes that occur in the human body during the age and focus on changes in the nervous system and circulatory system and musculoskeletal system and discusses the methods of evaluating the activity of the elderly and methods of physical therapy appropriate.

Orthotics & Prosthetics (2 Cr. Hr.): 801326, ((pre) 801202)

This course presents a review of the role of prostheses in the rehabilitation of patient with motor disabilities and the identification of types of prostheses suitable for various diseases and types of better and appropriate limbs and compensatory devices and cooperation with the art of artificial limbs to reach the best results in the rehabilitation of the patients.

Research Methods (2 Cr. Hr.): 801310

This course is an introduction to the research methods in physical therapy profession. Topics covered include: research design, hypothesis, identify research problems and sampling procedures, literature review, and writing skills.

Physical Therapy for Musculoskeletal Conditions (2 Cr. Hr.): 801322, ((pre) 801321)

This course introduces the professional aspects of assessing and using the methods and means of physical therapy for bone and muscular diseases, including fractures of various types, and focuses on spine disorders and joint diseases in the upper and lower limbs, including assessment and treatment methods.

Physical Therapy for Musculoskeletal Conditions practical (1 Cr. Hr.): 801323, ((co) 801322)

This course provides practical experience in the laboratory to assess the cases and the use of methods and means of physical therapy for cases of bone and muscle diseases, including fractions of all types and focuses on diseases of the spine and joint diseases in the upper and lower limbs, including the means of assessment and treatment.

Physical Therapy for neurological cases (3 Cr. Hr.): 801401, ((pre) 801317)

The course includes clinical knowledge and skills are needed for physical therapy evaluation and management of neurological disorders. The course allows students to independently evaluate, treat, and set long- and short-term goals for the patients with neurological impairments.

Physical Therapy for neurological cases practical (1 Cr. Hr.): 801402, ((co) 801401)

The course applies practically clinical knowledge and skills are needed for physical therapy evaluation and management of neurological disorders. The course allows students to independently evaluate, treat, and set long- and short term goals for the patients with neurological impairments.

Physical Therapy for cardiopulmonary system (2 Cr. Hr.): 801403, ((pre) 801234)

This course will provide theoretical information in cardiopulmonary system and how it dealt with in physical therapy, it will include in depth cardiac and respiratory disease where the

students will be required to understand physical therapy treatment protocols in different cardiovascular and respiratory problems.

Physical Therapy for cardiopulmonary system practical (1 Cr. Hr.): 801404, ((co) 801403)

This course will provide practical information in cardiopulmonary system and how it dealt with in physical therapy, it will include in depth cardiac and respiratory disease where the students will be required to understand physical therapy treatment protocols in different cardiovascular and respiratory problems.

Physical Therapy for surgery and burn (2 Cr. Hr.): 801413, ((pre) 801234)
The course focuses on theoretical aspects of physical therapy in cases of burns and surgery. It also includes a focus on physical therapy in postoperative situations. It covers abdominal surgery, skin surgery, deep wound healing, bed ulcers, breast surgery and women's surgery, as well as burns.

Physical Therapy for surgery and burn practical (1 Cr. Hr.): 801414, ((pre) 801413)

This course focuses on the practical application of physical therapy in cases of burns and surgery. It is also focus on physical therapy practice in postoperative situations. It covers abdominal and skin surgery, deep wound healing, bed ulcers, breast surgery and women's surgery, as well as burns.

Principles of Diagnostic Radiology (2 Cr. Hr.): 801240, ((pre) 801202)

This course will introduce the basic information about X ray used for diagnosis and assessments of different ailment. It will inform students about the diagnostic X ray. Also it will help students to explore methods and types of x ray like US and CTS and MRI.

Pediatric Physical Therapy (2 Cr. Hr.): 801408, ((pre) 801206)

This course provides extensive information on pediatric diseases and focuses on diseases related to the nervous system, the musculoskeletal system, congenital diseases of birth, and methods of physical therapy.

Pediatric Physical Therapy practical (1 Cr. Hr.): 801409, ((co) 801408)

This course is a practical course to provide sufficient exposure for the students to evaluate and treat different pediatrics Physical therapy problems including: Neurodevelopmental, orthopedic disorders, neurological disorders, cardiopulmonary disorders and others.

Exercise Physiology and electrodiagnosis (2 Cr. Hr.): 801232, ((co) 504230)

This course includes principles of exercise physiology as they relate to the various systems of the body. There is an emphasis on application of these principles when designing specialized exercise programs for effective patient care.

Sports injuries (1 Cr. Hr.): 801340, ((pre) 801234)

This course offers a practical application to deal with sports injuries, bones and joints resulting from accidents outside and inside sports fields. Including the identification of risk factors, how to use first-aid kits for sports injuries and fracture-related accidents, rehabilitation of these injuries and rehabilitation of the injured athlete, including examination, diagnosis, intervention and outcome.

Clinical Training, I (6 Cr. Hr.): 801428

This is a clinical training period for students to acquire skills in assessment, treatment and patient management in all areas of physical therapy, it is divided into 2 periods. The first period is 4 credit hours, students must spend two full days a week in a clinical physical therapy setting for 16 weeks, 8 hours a day.

Clinical Training II (8 Cr. Hr.): 801430,((pre) 801428)

The second period of 8 credit hours consists of working 8 hours /4 days a week for 16 weeks. During this periods, students were supposed to practice under supervision of clinical instructors to acquire physical therapy skills in cases of heart and lung disease, orthopedic surgery, neurology and pediatrics.

Symposium on Physical therapy (1 Cr. Hr.): 801420

In this course, the student selects a clinical case as a research project. The student starts by conducting a literature review about the methods of evaluation and treatment in such cases. Finally, a presentation is to be made at the end of semester to colleagues in a seminar format.

Community BASED Rehabilitation (3 Cr. Hr.) 801314

This course introduces students to the basic principles of community Rehabilitation programs, medical qualification and teamwork. It highlights the role of each of the rehabilitation team member and its relation to the roles of other members. The course also focuses on the medical and research ethics of rehabilitation team members in clinics and hospitals.

Pharmacology (3 Cr. Hr.): 504225

This course focuses on the basic drug classification, concepts and principles of pharmacology with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy through the use of the nursing process. Nursing implications relative to the utilization of drug therapy are examined. Dosage calculations are evaluated for competency. This course is designed for self-motivated adult learners. The course content will be located online.

Patient care principle (3 Cr. Hr.) 801410

This course is to prepare the future therapist to interact with patients, families of patients and other relevant individuals at all levels. Taking into account the psychosocial conditions in the development of self-understanding and communication skills with patients, families, the public and other health teams.

Management in physical therapy services (1 Cr. Hr.) 801215

The course is an introduction to the administration of hospitals and physical therapy services. Topics covered include departmental design, records, procedure manuals, scheduling of patients, recruiting, supervising and evaluating staff. The course also touches on the ethics of physical therapy.

Women's Health Physical Therapy (1 Cr. Hr.) 801411

This course provide an overview of the anatomical, physiological, nutritional, psychological, and sociological influences throughout the woman's life span including: adolescence, the reproductive years, the middle years, and older age. Discussion of physical therapy management of musculoskeletal, integumentary, cardiopulmonary, and genitourinary pathologies common to women.

Special topics in Physical therapy (3 Cr. Hr.): 801412

This course covers special selected topics in physical therapy and rehabilitation such as cancer rehabilitation, and new trends emerging in physical therapy.

First Aid (3 Cr. Hr.): 801230

This course prepares students to deal with a range of medical emergencies, from common injuries such as cuts, scrapes, and burns to major injuries such as trauma to the head and cardiac arrest.

Nutrition Science (3 Cr. Hr.): 504228

This course introduces the basic concepts that link diet to health and disease. These topics are investigated at both the individual and population levels, ranging from clinical practice to

epidemiologic research to national policy. From Clinical to Population Health; Reproductive System and Early Life; Gastrointestinal System; Metabolic, Pulmonary, and Renal Systems; and Cardiovascular and Immune Systems are the five components of this course.

Research in physical therapy (3 Cr. Hr.): 801426

This course provides an introduction to clinical research in physical therapy dealing with research design and methodology as well as the development of a research project topic. Also explain the importance of integrating evidence-based research to the profession of physical therapy and explain the role of integrating previously published research in physical therapy practice to the research process using appropriate databases and library resources sources to collect relevant information and support clinical decisions.

Physical Therapy for Chronic Pains (1 Cr. Hr.): 801421, ((pre) 801406)

This course provides students with the primary therapeutic objectives for physical therapists working with people in chronic pain and implement management that includes patient education, active approaches such as functionally oriented behavioral movement re-education approaches and exercise (including pacing), and passive approaches such as manual therapy, and application of electro physical agents as relevant.