Courses' Description

Physical Therapy Department

Course number	Course Name	Credit hours	Pre-requisites
0705102	Hydrotherapy	2	
This course provides the student with knowledge about the properties of water (Hot/Cold/Warm) and its uses in treatment. It also provides with the knowledge of underwater exercises and its application in different cases.			

Course number	Course Name	Credit hours	Pre-requisites
0705104	Biophysics	2	
This course provides the student with laws of physics and its application to electric circuits, electromagnetic field, water, fluids, and temperature and information about light, sound. Clinical/laboratory assessment techniques. Also, study its therapeutic effects and side effects.			

Course number	Course Name	Credit hours	Pre-requisites
0705105	Kinesiology	2	
These courses provide the student with an analysis of the motion, levers, forces, resistance, Newton laws, Gait analysis (kinematic and kinetic analysis and pathological gait).			

Course number	Course Name	Credit hours	Pre-requisites
0705201	Anatomy of Extremities	2	0701262
The aim of this course is to inform the student with full anatomical knowledge of bones, muscles, joints, nerves and blood vessels for axial and peripheral skeleton.			

Course number	Course Name	Credit hours	Pre-requisites

0705202	Anatomy of Extremities (Practical)	1	
The aim of this course is to inform the student with full practical anatomical knowledge of bones, muscles, joints, nerves and blood vessels for axial and peripheral skeleton.			

Course number	Course Name	Credit hours	Pre-requisites
0705203	Pathology	2	0701364
This course provides the student with an analysis of the etiology, pathology, and clinical sciences of musculoskeletal, neuromuscular, integumentary, endocrine, and immune (herein "other systems") diseases, disorders, and condition (Clinical/laboratory assessment techniques). Also, it provides the student with the study of the general etiology of diseases, ex. Bacteria, Viruses, infections.			

Course number	Course Name	Credit hours	Pre-requisites
0705205	Principles of Assessment, Tests and Measurements	2	0705201
This course provides the student with knowledge about: Introduction to test & Measurement, Levels of measurement, Reliability, objectivity & validity, Manual muscle testing, Joint range of motion for upper and lower limbs and trunk, Long and round measurements for upper and lower limbs, Strain gauge devices, Hand held dynamometer, Electrogoniometer, Plurimeter and Isokinetic muscle performance.			

Course number	Course Name	Credit hours	Pre-requisites
0705206	Principles of Assessment, Tests and Measurements (Practical)	1	
This course provides the student with: The practical application of manual muscle testing, Joint range of motion for upper and lower limbs and trunk, Long and round measurements for upper and lower limbs, Strain gauge devices, Hand held dynamometer, Electro goniometer, Plurimeter and Isokinetic muscle performance.			

Course number	Course Name	Credit hours	Pre-requisites
0705207	**Electrophysical agents 1**	**2**	**0705104**
This course provides the student with the knowledge of electrotherapeutic modalities, including (ultrasound- shockwave- shortwave- laser- ultraviolet). This course is designed to prepare students to select, apply integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities.			

Course number	Course Name	Credit hours	Pre-requisites
0705208	**Electrophysical agents 1 (Practical)**	**1**	
This course provides the student with the practical application of electrotherapeutic modalities, including including (ultrasound- shockwave- shortwave- laser- ultraviolet). This course is designed to prepare students to select, apply integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities.			

Course number	Course Name	Credit hours	Pre-requisites
0705210	**Biomechanics**	**2**	**0705105**
This course provides the student with the knowledge of functional anatomy, Kinematics, Kinetics and pathomechanics of the hip joint, knee joint, patellofemoral joint, ankle, foot joints and lumbar spine.			

Course number	Course Name	Credit hours	Pre-requisites
0705211	**Biomechanics (Practical)**	**1**	
This course provides the students with practical skills of functional anatomy, Kinematics, Kinetics and pathomechanics of the hip joint, knee joint, patellofemoral joint, ankle, foot joints and lumbar spine.			

Course number	Course Name	Credit hours	Pre-requisites
0705212	**Electrophysical agents 2**	**2**	**0705207**
This course provides stimulation (TENS); ionophoresis, electrical muscle stimulation; and biofeedback in order to modulate or decrease pain; reduce or eliminate soft tissue inflammation caused by musculoskeletal, neuromuscular, peripheral vascular, or integumentary injury, disease, developmental delay, or surgery. This course is designed to prepare students to select, apply, integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities			

Course number	Course Name	Credit hours	Pre-requisites
0705213	**Electrophysical agents 2 (Practical)**	**1**	
This course provides practical application of stimulation (TENS); ionophoresis, electrical muscle stimulation; and biofeedback in order to modulate or decrease pain; reduce or eliminate soft tissue inflammation caused by musculoskeletal, neuromuscular, peripheral vascular, or integumentary injury, disease, developmental delay, or surgery. This course is designed to prepare students to select, apply, integrate and critically evaluate the use, limitations, indications, and contraindications of electrotherapeutic modalities.			

Course number	Course Name	Credit hours	Pre-requisites
0705222	**Therapeutic Exercises**	**2**	**0705105 0705201**
This course enables the student to understand: Scientific Basis of Therapeutic Exercise, Types of joints and Passive range of motion, Active assisted and active free Ex, Resistance Exercise, Posture, Stretching, Core stability exercises, Balance exercises, Coordination exercises, Plyometrics exercises, open and closed kinetic chain exercises. Peripheral joint mobilization, Cervical Spine assessment and mobilization. Thoracic Spine assessment and mobilization. Lumbar Spine assessment and mobilization. Neurodynamic tension testing. Mulligan Techniques. Plyometric Training. Mckenize Techniques and Spinal Traction.			

Course number	Course Name	Credit hours	Pre-requisites
0705223	**Therapeutic Exercises (Practical)**	**2**	
This course provides the students with the practical applications of therapeutic exercise, types of joints and passive range of motion, active assisted and active free ex, resistance exercise, posture, stretching, core stability exercises, balance exercises, coordination exercises, plyometrics exercises, open and closed kinetic chain exercises. Peripheral joint mobilization, Cervical Spine assessment and mobilization. Thoracic Spine assessment and mobilization. Lumbar Spine assessment and mobilization. Neurodynamic tension testing. Mulligan Techniques. Plyometric Training. Mckenize Techniques and Spinal Traction.			

Course number	Course Name	Credit hours	Pre-requisites
0705224	**Neuroanatomy**	**2**	**0701262**
This course provides the student with: Introduction of nervous system, cerebral hemispheres, white and gray matter, cerebral meninges, cerebrospinal fluid, medulla, pons, midbrain, brain ventricle, cerebellum, internal structures of the cerebral hemispheres, basal ganglia, the internal capsule, diencephalon and blood supply of the brain and spinal cord. With specific regard to functional anatomy and its relation to rehabilitation.			

Course number	Course Name	Credit hours	Pre-requisites
0705226	**Evaluation of the Musculoskeletal System**	**1**	**0705201**
This course enables the student to know and analyze the underlying principles of special testing of musculoskeletal and neurological systems and gait.			

Course number	Course Name	Credit hours	Pre-requisites
0705227	**Evaluation of the Musculoskeletal System (Practical)**	**1**	
This course enables the student to apply clinical testing of musculoskeletal and neurological systems and gait.			

Course number	Course Name	Credit hours	Pre-requisites
0705301	**Physical Therapy for Pediatrics**	**2**	
These courses enable the student to independently examine and reexamine a patient or client with delayed motor development, congenital deformities, and birth injuries by obtaining a pertinent history from the patient's family or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.			

Course number	Course Name	Credit hours	Pre-requisites
0705302	**Physical Therapy for Pediatrics (Practical)**	**2**	
This course provides the students with practical application of evaluation of children who suffer from delayed motor development - injuries during birth - congenital deformities in order to arrive at a physical therapy diagnosis that suits the medical diagnosis, through various evaluation methods and the ability to develop an integrated physical therapy program - and modifying program if necessary.			

Course number	Course Name	Credit hours	Pre-requisites
0705305	**Neurology**	**2**	**0705224**
This course provides the student with knowledge about: Introduction, neurological sheet and nervous system, pyramidal, extrapyramidal tracts, cerebellar, spinal cord and cauda equina, peripheral nerves, muscle fibers and neuromuscular junction disorders and demyelinating disorders in nervous systems.			

Course number	Course Name	Credit hours	Pre-requisites
0705323	**Physical Therapy for Cardiopulmonary Diseases**	**2**	**0701364**
This course provides the student with knowledge about: Functional anatomy of heart and lung, physical therapy role with cardiac diseases, lung diseases and intensive care unit. Basics of ECG and interpretations, cardiac rehabilitation, pulmonary rehabilitation and cardiopulmonary exercise testing.			

Course number	Course Name	Credit hours	Pre-requisites
0705324	**Physical Therapy for Cardiopulmonary Diseases (Practical)**	**2**	
This course provides the student with practical skills and application to cardiopulmonary physical therapy (evaluation and treatment). chest examination, General and local cardiac examination, Methods of chest physical therapy, Program design for cardiac and pulmonary rehabilitation.			

Course number	Course Name	Credit hours	Pre-requisites
0705328	**Physical Therapy for Musculoskeletal System Diseases 1**	**2**	**0705201**
This course provides the student with knowledge about: Assessment in orthopedic physical therapy, Intro to Rehab. of fractures, bone healing and osteoporosis, neck pain & TMJ, shoulder fractures & dislocations, frozen shoulder, Impingement syndrome and Rotator cuff tear, traumatic conditions of the elbow, Myofascial pain syndrome, soft tissue injuries of wrist & hand, DJD, rheumatoid Arthritis, Gait assessment and Gait training, traumatic conditions of wrist and hand.			

Course number	Course Name	Credit hours	Pre-requisites
0705329	**Physical Therapy for Musculoskeletal System Diseases 1 (Practical)**	**1**	
This course provides the student with practical skills about: Assessment in orthopedic physical therapy, Intro to Rehab. of fractures, bone healing and osteoporosis, neck pain & TMJ, shoulder fractures & dislocations, frozen shoulder, Impingement syndrome and Rotator cuff tear, traumatic conditions of the elbow, Myofascial pain syndrome, soft tissue injuries of wrist & hand, DJD, rheumatoid Arthritis, Gait assessment and Gait training, traumatic conditions of wrist and hand.			

Course number	Course Name	Credit hours	Pre-requisites
0705338	**Physical Therapy for Musculoskeletal System Diseases 2**	**2**	**0705328**
This course provides the student with knowledge about: Assessment in orthopedic physical therapy for lumbar Spondylosis & lumbar Disc Prolapse, sacroiliac Dysfunction and Mechanical LBP, traumatic conditions and surgery of spine and pelvis, spinal deformities, ankylosing spondylitis, traumatic conditions of hip, hip & knee Arthroplasty, physical therapy for PFPS, traumatic conditions of ankle & foot, painful foot, deformities of ankle & foot.			

Course number	Course Name	Credit hours	Pre-requisites
0705339	**Physical Therapy for Musculoskeletal System Diseases 2 (Practical)**	**1**	
This course provides the student with knowledge about: Assessment in orthopedic physical therapy for lumbar Spondylosis & lumbar Disc Prolapse, sacroiliac Dysfunction and Mechanical LBP, traumatic conditions and surgery of spine and pelvis, spinal deformities, ankylosing spondylitis, traumatic conditions of hip, hip & knee Arthroplasty, physical therapy for PFPS, traumatic conditions of ankle & foot, painful foot, deformities of ankle & foot.			

Course number	Course Name	Credit hours	Pre-requisites
0705340	**Physical Therapy for Neuromuscular System Diseases 1**	**2**	
This course provides the student with knowledge about: Introduction about the course. Evaluation sheet, P.T for selected neurological cases and Basic Principles of PNF.			

Course number	Course Name	Credit hours	Pre-requisites
0705341	**Physical Therapy for Neuromuscular System Diseases 1 (Practical)**	**1**	
This course provides the student with knowledge about: Introduction about the course. Evaluation sheet, P.T for selected neurological cases and Basic Principles of PNF.			

Course number	Course Name	Credit hours	Pre-requisites
0705366	**Physical Therapy for Geriatrics**	**2**	
The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition in geriatric population.			

Course number	Course Name	Credit hours	Pre-requisites
0705401	**Exercise Physiology**	**2**	**0701364**
This course provides the student with knowledge of the normal physiological response of the human body to exercise. The pulmonary, cardiovascular, musculoskeletal, neuromuscular, and metabolic responses to exercise and their implications in physical therapy intervention. Energy delivery, utilization, and regulation of the major physiological systems during rest and exercise. Abnormal responses to exercise, and the effects of exercise training on body composition, deconditioning, and health status. Appropriate measurements of physiological functions.			

Course number	Course Name	Credit hours	Pre-requisites
0705402	**Physical Therapy for Surgery and Burns**	**2**	
This course provides the student with knowledge about: Introduction for skin anatomy & physiology, burn, post burn complications and their prevention measures, physical therapy management of facial, neck, hand burn, physical therapy management of electrical, chemical burn, physical therapy management for pediatric burn, inhalation injuries (evaluation. Treatment), walking reeducation and ambulation for patient with lower extremity burn. Introduction for wound healing and scar biology formation, various methods for wound assessment, role of pt in different types of skin disease and skin graft. Upper and lower abdominal surgery, post-surgical complication, electrotherapy and physical therapy for mastectomy, ulcer, cancer, thyroidectomy, hernia and lymph edema, appendectomy, obesity and bariatric surgeries, plastic surgery, role of physical therapy for rectal disorders, prostatectomy and urinary incontinence. physical therapy management for pain.			

Course number	Course Name	Credit hours	Pre-requisites
0705404	**Physical Therapy for Woman Health**	**2**	
These courses enable the student to independently examine and reexamine a patient or client with gynecological and obstetric problems by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.			

Course number	Course Name	Credit hours	Pre-requisites
0705405	**Physical Therapy for Woman Health (Practical)**	**1**	
These courses enable the student with the practical skills to examine and reexamine a patient or client with gynecological and obstetric problems by obtaining a pertinent history from the patient or client and from other relevant sources, by performing relevant systems review, and by selecting appropriate age-related tests and measures. The student will be able to synthesize examination data to complete the physical therapy evaluation and engage in the Physical Therapy diagnostic process, design a plan of care, and implement it, writing progress notes and change plan of care according to patient condition.			

Course number	Course Name	Credit hours	Pre-requisites
0705406	**Pharmacology for Physical Therapy Students**	**1**	**0705203**
This course provides the student with pharmacological interaction, and clinical sciences of musculoskeletal, neuromuscular, integumentary, endocrine, and immune (herein “other systems”) diseases, disorders, and condition as it relates to physical therapy.			

Course number	Course Name	Credit hours	Pre-requisites
0705407	**Psychiatry for Physical Therapy Students**	**1**	
This course provides the student with knowledge about: Introduction. Personality Structure. Etiology and symptomatology of psychiatric disorders. Anxiety Disorders. Drugs abuse and dependence. Mental retardation. Delirium disorders. Somatoform disorders, Organic brain syndrome, Psycho pharmacology.			

Course number	Course Name	Credit hours	Pre-requisites
0705414	**Quality in Healthcare**	**1**	
This course aims to study how to improve physical therapy and health care services through quality assurance, use of objective measurements, and setting goals.			

Course number	Course Name	Credit hours	Pre-requisites
0705420	**Principles of Nutrition for Physical Therapy Students**	**1**	
This course provides the student with knowledge about: Nutrients and their metabolism, Principles of dietary plan, Nutritional assessment, Food guide pyramid, Food exchange list, Nutrition in cardiovascular diseases and HTN, Nutrition in GIT problems, Nutrition in diabetes, Nutrition in obesity, and Nutrition in elderly and athletes.			

Course number	Course Name	Credit hours	Pre-requisites
0705421	**Physical Therapy for Neuromuscular System Diseases 2**	**2**	**0705340**
This course provides the student with knowledge about: P.T for selected neurological cases (Head injuries. Spinal cord injuries. Space occupying lesions of the brain and spinal cord. Peripheral nerve injuries. Surgical intervention in spasticity. Sub-arachnoid hemorrhage. Subdural haematoma. Inflammatory disorders of the brain and spinal cord. Cervical disc prolapse. Lumbar disc prolapse. Modern neuro-surgical intervention).			

Course number	Course Name	Credit hours	Pre-requisites
0705422	**Physical Therapy for Neuromuscular System Diseases 2 (Practical)**	**1**	
This course provides the student with practical applications about: P.T for selected neurological cases (Head injuries. Spinal cord injuries. Space occupying lesions of the brain and spinal cord. Peripheral nerve injuries. Surgical intervention in spasticity. Sub-arachnoid hemorrhage. Subdural haematoma. Inflammatory disorders of the brain and spinal cord. Cervical disc prolapse. Lumbar disc prolapse. Modern neuro-surgical intervention).			

Course number	Course Name	Credit hours	Pre-requisites
0705432	**Graduation Project for Physical Therapy Students**	**2**	
This course provides the student with knowledge, skills and competency about: Physical therapy management of selected cases			

Course number	Course Name	Credit hours	Pre-requisites
0705433	**Orthotics and Prosthetics**	**1**	**0705210**
This course provides the student with: an understanding of the management of deformities (treatment and prevention) by using orthotics and prosthetics (This course provides the student with U.L and L.L orthoses and prosthesis, Spinal support, Walking aids and wheel chair. Proper fitting and application.			

Course number	Course Name	Credit hours	Pre-requisites
0705435	**Traumatology**	**2**	**0705201**
It provides the student with knowledge about types, mechanisms of fractures, dislocation, methods of reductions and treatment.			

Course number	Course Name	Credit hours	Pre-requisites
0705437	**Occupational Therapy**	**1**	
This course provides the student with knowledge about: Introduction of OT in relation to allied medical services, team personnel, method and tools). Overview of O.T for children. Main aspects or basic principles of O.T. Methods and aims of evaluation. Evaluation of development of hand function skills of normal child. Intervention for problems of hand function in different cases. Assessment of feeding. Impact of hand function problems on feeding and appropriate interventions in different cases. Evaluation for development of hand function skills of normal child (case study). Orthotics and Prosthetics and Occupational Therapy Process for Individuals: Work Contexts.			

Course number	Course Name	Credit hours	Pre-requisites
0705443	**Research Methods**	**1**	
This course focuses on evaluating research designs, medical statistics, research application to clinical practice, and methods used in rehabilitation sciences, with an emphasis on formulating hypotheses, collecting data and conclusions, and student participation in research criticism of published research. This course provides the student with knowledge about: Sample, population and levels of measurements. Data Organization and Displaying. Measures of central tendency. Measures of Dispersion. Paired and unpaired t-test. Basic principles of research. Logical steps of research process. literature review. Research Classification. Experimental Design. Sampling techniques. How to write a paper for a scientific journal. Randomized trial. Validity and reliability and Citation Testing Hypothesis Problem solving.			

Course number	Course Name	Credit hours	Pre-requisites
0705303	**Internal medicine for Physical Therapy students**	**2**	**0701364**
This course provides the student with knowledge about: Internal medicine diseases as cardiopulmonary disease, hypertension, Hypotension, Obesity, Metabolic syndrome, Diabetes Mellitus, Introduction to renal diseases, Venous disorders, Peptic ulcer, Introduction to liver diseases and Peripheral arterial diseases. Geriatric overview.			

Course number	Course Name	Credit hours	Pre-requisites
0705320	**Pediatric Diseases**	**2**	
It provides the student with knowledge about delayed motor development disorders, birth injuries, congenital deformations and others.			

Course number	Course Name	Credit hours	Pre-requisites
0705330	**General Surgery**	**2**	
This course includes the principles of surgery as a way to treat some diseases. The focus will be on surgeries that are frequently performed for diseases directed by those working in the field of medical rehabilitation, such as brain and spine surgeries, bone and joint diseases, accidents and burns, plastic surgery, urology, and pediatric surgery.			

Course number	Course Name	Credit hours	Pre-requisites
0705333	**Radiography and Diagnostic Devices**	**2**	
This course provides the student with knowledge about: Introduction about imaging, Normal Imaging Anatomy of brain, spinal cord, bone and internal organs as chest (heart& lung), Abdominal, pelvic that can be seen in radiology. The Normal PA and Lateral and different views of imaging. Radiological Chest Signs, Types of normal and abnormal opacities, Examples of radiological chest abnormalities, Radiological findings for Chest deformities, Radiological findings for Heart abnormalities, Radiological findings for Chronic obstructive pulmonary diseases, Radiological findings for restrictive pulmonary diseases, Radiological findings for suppurative lung disease, Radiological findings for benign and malignant pulmonary tumors, CT Angiography, Cardiac CT for Calcium Scoring and Coronary CTA. Uses of C.T. as an imaging modality, MRI in neurological and musculoskeletal diagnosis, Spinal trauma, Inflammatory joint diseases, Degenerative joint diseases, Gouty arthritis, Bone and joint infection, Imaging modalities in pyogenic joint infection, Imaging modalities used in lumbar disc prolapse, lumber spondylosis. Uses of x ray as an imaging modality. Ultrasonography.			

Course number	Course Name	Credit hours	Pre-requisites
0705436	**Physical Therapy in Intensive Care**	**2**	**0705323**
It provides the student to evaluate patient problem, design a plan of care and implement it in the intensive care unit to prevent complications.			

Course number	Course Name	Credit hours	Pre-requisites
0705444	**Selected Topics in Physical Therapy**	**2**	
This course aim to: Introduce selected topics important to physical therapist.			

Course number	Course Name	Credit hours	Pre-requisites
0705390	**Clinical Training for Pediatrics**	**2**	
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various children's diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			

Course number	Course Name	Credit hours	Pre-requisites
0705391	**Clinical Training for Musculoskeletal System 1**	**2**	
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various orthopedic diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			

Course number	Course Name	Credit hours	Pre-requisites
0705392	**Clinical Training for Cardiopulmonary System**	**2**	
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various cardiothoracic and internal medicine diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			

Course number	Course Name	Credit hours	Pre-requisites
0705393	**Clinical Training for Neuromuscular System 1**	**2**	**0705340**
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various neurological diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			

Course number	Course Name	Credit hours	Pre-requisites
0705491	**Clinical Training for Musculoskeletal System 2**	**2**	**0705391**
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various orthopedic diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			

Course number	Course Name	Credit hours	Pre-requisites
0705493	**Clinical Training for Neuromuscular System 2**	**2**	**0705393**
This course aim to: Applying theoretical aspects that have been studied before, and using basic knowledge in evaluating patients and developing and implementing a treatment plan for various neurological diseases. The role of students in this course is limited to watching and observing qualified physical therapists as they evaluate and treat diseases.			