**Course description:**

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| **372110-4** | **Anatomy for Physical Therapy** |
| This course is focusing on anatomy of bone, joint, muscles and nerves of upper & lower limbs. |

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| **372111-4** | **Physiology for Physical Therapy** |
| This course helps students to identify physiology of heart, respiratory system, the renal system and electrolytes balance, endocrine system and its disorders, the digestive system, and the physiological principles underlying disease states that aids in interpretation of symptoms. |

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| **372112-2** | **Cytology for Physical Therapy** |
| This course helps students to identify different types of microscopes, to explain structure of the cell, tissues and their relationship, to recognize fundamental concepts and definitions of histology of different human body tissues including skin, muscles, nerve, bone, cartilage and blood that can be applied to practice and to carry out different physiological experiments. |

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| **372113-3** | **Basic Biomechanics** |
| This course is focusing on types of motion of different joints, centre of gravity and stability during motion, postural assessment, body machines in addition to application of Newton’s laws for body motions. |

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| **372114-2** | **Electrotherapy & Hydrotherapy1** |
| This course helps students to use different electro and hydrotherapy modalities in different clinical sitting. |

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| **372115-1** | **Ethics and Laws** |
| This course helps students to develop theoretical understanding of philosophical sense of morality, knowing the right and wrong, good and bad and to understand the legal rights and duties, and penalties of mal practice or bad practice. |

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| **372120-2** | **Pathology for Physical Therapy** |
| This course helps students to know histological structure and function as well as functional disorders and common diseases affecting different body organs and tissues, discuss the main disease categories that may affect the body, as well as the basic mechanisms underlying these disorders, including etiology , pathogenesis & natural history also describe the morphologic, gross & microscopic changes occurring as a result of such disease processes and correlate pathological changes and functional disorders to abnormal laboratory findings. |

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| **372121-3** | **Therapeutic Exercise 1** |
| This course helps students to recognize different types of therapeutic exercises and its physiological effects. In addition to practice the basic skills needed during the application of different therapeutic exercises. |

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| **372122-4** | **Tests and Measurement** |
| This course helps students to identify the theoretical basis of measurements, outline a standard approach to evaluate the human physical performance and practice the basic skills needed for manual muscle testing, range of motion measurement, and selected instrumented measurements. |

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| **372123-2** | **Axial Anatomy** |
| This course is focusing on anatomy of axial skeleton. |

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| **372124-2** | **Electrotherapy & Hydrotherapy 2** |
| This course helps students to use different electro and hydrotherapy modalities in different clinical sitting. |

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| **372125-3** | **Motion Analysis** |
| This course is focusing on kinematics, kinetics and pathomechanics of walking and running and different motion analysis devices. |

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| **372315-4** | **Biomechanics of Musculoskeletal System** |
| This course is focusing on kinematics, kinetics and pathomechanics of bone, cartilage muscle and joints and principles of muscle training. |

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| **372316-1** | **Traumatology and Orthopedics Diseases** |
| This course helps students to identify the normal response of musculoskeletal system to trauma and different pathologies, to identify etiology, symptomatology, assessment, and management of the different orthopedic trauma and diseases and to identify the basics of conservative and surgical treatment. |

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| **372317-4** | **Physical Therapy for Traumatology and Orthopedics** |
| This course is an essential theoretical and practical course. It provides the student with theoretical and practical knowledge needed for dealing with traumatology and orthopedic cases, based on anatomical, mechanical, and physiological knowledge as well as knowledge in methods of physical assessment and treatment. After studying the course, the student will be able to apply systematic evaluation for different traumatology and orthopedic cases, interpret results of evaluation, plan and execute a plan of physical therapy based on the applied evaluation.  |

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| **372318-2** | **Exercise Physiology** |
| This course helps students to describe the effect of exercise on different body system in addition how energy can be generated, stored, and transferred. In addition to what is the precautions of exercise in special situation such as excess heat or cold. |

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| **372319-2** | **Therapeutic Exercise 2** |
| This course helps students to build up knowledge and skills necessary for the utilization of therapeutic exercises and to make student capable of using advanced electronic machinery in conducting therapeutic exercises. |

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| **372329-2** | **Neuroanatomy** |
| This course is focusing on anatomy of the brain, spinal cord, cranial and spinal nerves and the effect of their injuries. |

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| **372334-1** | **Healthcare Management Systems** |
| This course is designed to introduce the student to the management and leadership concepts and principles necessary to promote student's ability to manage care and make appropriate decisions related to clients. These concepts and principles are also necessary to facilitate student's growth as future physical therapy leader able to affect quality of care and introduce change when necessary.  |

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| **372335-2** | **Physical Therapy for Sports Injuries** |
| This course aims to give the student theoretical knowledge and practical skills to identify the common sports injuries, how to assess them and how to design a physiotherapy program to manage them and the criteria to return the athlete to his sports, as well as the methods of prevention of injury. This course is considered an extension and complementary to the physiotherapy for traumatology and orthopedics course.  |

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| **372336-2** | **Neurophysiology** |
| This course helps students to understand the physiology of the nervous system (both central and peripheral nervous system), to identify the mechanism of muscle contraction, differentiate between different types of nerve fibers, recognize the sensory tracts (pathways), identify the different descending pathways, recognize basic knowledge of EMG and describe the functions vestibular system. |

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| **372337-1** | **Burns and General Surgery** |
| This course enables the student to recognize different types of burn injuries and different surgical intervention used for the abdominal problems and common surgical and medical treatment have been utilized in the management of these cases. |

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| **372338-4** | **Physical Therapy for Burns and General Surgery** |
| This course aims to enable students to evaluate patients with burn and general surgeries, identify patient’s problems and implement the proper evaluation or and/ or physiotherapy technique. |

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| **372339-1** | **Cardiopulmonary Diseases** |
| This course aims to enable students to identify etiology, risk factors, clinical manifestations, evaluation and treatment of cardiovascular and pulmonary conditions. To recognize the applications and monitoring of life support systems and to analyze various laboratory and radiological findings of different chest and cardiovascular disorders. |

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| **372342-3** | **Physical Therapy for Cardiopulmonary Diseases** |
| This course aims to enable students to identify and practice various physical therapy techniques, modalities and methods employed in evaluation and treatment of cardiopulmonary disorders, pre- and post-operative cardiothoracic patients, and physiotherapy for critical care conditions. |

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| **372343-1** | **Orthotics and Prosthetics** |
| This course aims to enable students to identify different types and materials used in the fabrication of upper and lower extremity prosthesis, orthoses, and walking aids. It helps students to identify some biomechanical principles and basic parts of orthotics and prosthetics, and how to select and fabricate the proper one according to the patient's needs. |

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| **372344-2** | **Radiology for Physical Therapy** |
| The course is designed to enable the student to outline and discuss the fundamentals of radiology for physiotherapy. |

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| **372410-2** | **Growth and Developmental Disorders** |
| This subject is focusing on etiology, pathology, clinical picture and medical management of common genetic, developmental and congenital disorders in pediatrics. |

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| **372411-4** | **Physical Therapy for Growth and Developmental Disorders** |
| This course is designed to introduce the student to the management of developmental problems, musculoskeletal, neuromuscular and genetic disorders in pediatrics to promote the student's ability for making appropriate decision related to patient or client. These principles are also necessary to facilitate student's growth as future physical therapist practitioner able to affect the quality of care.  |

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| **372412-2** | **Research in Health Sciences** |
| This course is designed to help the students gain the basic principles of scientific research and to apply them in the field of physical therapy. |

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| **372413-2** | **Physical Therapy for Obstetrics and Gynecology** |
| This course teaches the student different cases of gynecology and obstetrics problems and the methods of physical therapy rehabilitation according to each patient problems and plan of treatment.  |

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| **372414-1** | **Rehabilitation of Psychiatric Diseases** |
| This course involves the study of different psychiatric conditions and the difference between normal psychology and pathological psychiatric conditions. It also involves the study of different rehabilitation methods and how can physical therapy manage these conditions. |

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| **372415-2** | **Pharmacology for Physical Therapy** |
| This course is designed to provide the students with knowledge about principle of pharmacology, and its effect on different body systems. |

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| **372416-3** | **Clinical Practice 1** |
| This course aims to add some clinical experiences to the students to perform accurate, timely, and appropriate patient evaluations utilizing procedures learned in the academic setting and to outline evaluation results as the basis for clinical decision-making and establishing patient care goals and plans in different Physical Therapy Fields; growth and developmental disorders, cardiopulmonary diseases, and traumatology and orthopedics. |

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| **372420-1** | **Neurological Disease and its Surgery** |
| This course is aiming to discuss and explain the medical background of the neurological and neurosurgical disorders that are in need for physical therapy. As well to use these knowledge to explain the most common problems in those patients. Additionally to make student able to recognize the common abnormalities resulting from lesion of different parts of the nervous system. |

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| **372421-4** | **Physical therapy for Neurological Disease and its Surgery** |
| This course is aiming to discuss and explain physical therapy assessment of patients with neurological and neurosurgical disorders. As well, to make the student recognize the most common problems of each neurological and neurosurgical disorder that are in need for physical therapy. Additionally, to make the student able to utilize knowledge and practical skills in understanding and applying physical therapy assessment, establishing goals and apply physical therapy treatment for each neurological and neurosurgical disorder. |

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| **372422-1** | **Internal Medicine and Geriatrics** |
| This course helps students to identify etiology, risk factors, clinical manifestations and methods employed in evaluation and treatment of some of the internal diseases, vascular disorders and geriatrics modulated by medical interventions and to identify the possible theories of aging and the physiological changes in different body systems related to aging. |

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| **372423-3** | **Physical Therapy for Internal Medicine and Geriatrics** |
| This course helps students to identify and practice various physical therapy techniques, modalities and methods employed in evaluation and treatment of metabolic and vascular disorders and management of elderly subjects. |

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| **372424-1** | **Principles of Occupational Therapy** |
| The course aims at applying the principles and therapeutic skills of occupational therapy. Students are acquainted with the commonalities between physical therapy and occupational therapy in order to identify types of patients who are in need of occupational therapy. |

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| **372425-1** | **Ergonomics** |
| This course is focusing on how to fit the work to subject to avoid injuries during work. |
| **372426-3** | **Clinical Practice 2** |
| In this course students will be advised in clinical practice in different hospitals for different clinical cases of neurological disorders, internal medicine and geriatrics and cases of surgery and burn. |

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| **372429-4** | **Graduation Research Project** |
| This course introduce how can a student perform a research project with all its components. It includes; selection of a research problem, literature review to help in facilitation of the research project, teaching the methods of collecting sample and writing methodology. Methods of statistical analysis are briefly described and finally how to write the discussion and conclusion. |