Course Description for Faculty Requirements

050110 Physiology 1 7 hours) Prerequisite : (0304101)

(2 credit

This course is desgined to inreduce the students to the basic concepts of cardiovascular, respiratoty and nerveous systems physiology. The course begins with the basic concepts of physiological control and homeostasis. It focuses on the contribution of the above systems on the general functions of the human body. Special senses will be covered.

050210Anatomy of Head , Neck , and Thorax(3 credit7hours)Prerequisite : (0304101)

This course will cover head, neck and brain , and thorax . It concentrates on parts of the above subjects and their functions and relations It focuses on brain centres and the tracts which transmit orders to extremities , with special emphasis on functional anatomy and its relation to disabilities which require rehabilitation .

180414 Intoduction to Speech-Language and Hearing Disorders 0 (3credit hours)

The nature of speech and language pathology, deviations from normal speech and language patterns, e.g., disorders of language , articulation, voice, and stuttering, aphasia and neuromotor speech disorders. Types, degrees, causes, signs and symptoms of hearing loss; mechanisms of hearing; simple clinical tests and brief anatomy and phsyiology of the ear.

180424 Research Methods in Rehabilitaion Sciences (3 0 credit hours)

This course focuses on evaluation of research designs and

Biostatistics. Application of research on clinical practice and methodological considerations in rehabilitation sciences with emphasis on hypothesis statement, data collection, results and conclusions and students involvement in critique of published articles.

1802447 Management and Leadership (3 credit hours)

This course includes management and leadership principles and concepts necessary to promote the student's ability to manage care and make appropriate decisions related to clients. It also covers concepts and principles necessary to facilitate students' growth to prepare them as future rehabilitation leaders able to affect quality of care and introduce change when necessary. The use of computers in rehabilitation programs is illustrated.

Course Description for Physiotherapy

0501108 Physiology 11 Prerequisite (0501107)

(credit 2 hours)

This course is designed to introduce the students to concepts of nerve and muscle, blood, endocrine, reproductive and renal systems. the course elaborates on the contribution of the above systems on the general well being of the human body.

0501109 Physiology laboratory hours)

(1 credit

Prerequisite or concurrent (0501107)

The following laboratory sessions will be performed by or demonstrated to the students during this course: Nerve and muscle demonstrations : instruments and dissection, demonstration: simple muscle twich, summation. tetanization and fatique, effect of temperature on simple muscle twich, red blood cells count, white blodd cells count, differential leucocytic count, Hb, PVC, E.S.R., fragility and reticulocyte countn, blood group, bleeding time, clotting time, ECG. inroduction and limb leads, ECG. chest lead calculations, ECG. vector analysis, pulse, blood pressure heart sounds, and spirometry .

0502108 Anatomy of extremities hours) Prerequisite : (0304101)

This course will cover upper limbs, lower limbs, abdomen, pelvis and perineum. The lectures and practicum will emphasize on structures, blood supply, nerve supply of all structures, with special concentrations on functions of all parts. It will also cover the spinal cord structure and roots.

0503101 Therapeutics : (1 credit hours)

pre-requisite or concurrent : (0501108)

This course introduces the student to the application of pharmacological principles in the treatment of common medical and surgical problems including the indications , side effects and contraindications of medications . Emphasis will be on medications used in rehabilitation medicine such as diseases of muscles , joints and nervous system .

(3 credit

504207 Pathalogy: hour)

This course will cover cellular pathalogy accute and chronic inflamation, tissue repair, hemodynamic disorder, neoplasia, and infectious diseases. It will also give an overview of some of the pathalogical conditions of the system which are related to the students of the Rehabilitaion Sciences.

0508102 Internal Medicine For Rehabilitation Students (2 credit hours)

pre-requisite : (0501107)

This course focuses on the underlying concepts and principles common to major health problems, alterations in cell function and growth, alterations in integrated body function and defenses , fluids and electrolytes. It covers different medical conditions with emphasis on the diseases which lead to disabilities such as neuromusculor, rheumatology, pulmonary and cardiac diseases

0508103 Diagnostics : hours)

(2 credit

ours j

Prerequisite or concurrent : (0508102)

The student is introduced to the principles of radiology including different modalities and reading x-ray films . It also includes other diagnostic tests such as laboratory test , ultrasound , MRI and CT scans used in the diagnosis and follow-up of treatment of cases that require rehabilitation .

1801201 Principles of Rehabilitation Medicine Credit hours : 3h Prerequisite : (0507102)

This course introduces students to the basic principles of rehabilitation and team work. It focuses on the role of each member of the team and their relation to each other. The 1 credit hour laboratory will focus on the application of these basic principles

1801202Physiotherapy Techniques ICredit hours :3hPrerequisite or concurrent : (1801201)

This course will cover the basic principles of therapeutic exercises, starting position, range of motion exercises, resistive exercises, therapeutic massage, connective tissue massage and acupressure. The student will attend physiotherapy gymnasium and get to know all the instruments used for treatment purposes.

Credit hours

180130 Physiotherapy Techniques II 6 hours : 3h Prerequisite : (1801202)

This course will cover the physical principles, physiological effects, therapeutic uses, and clinical application of physical agents used in electrotherapy like short wave diathermy, ultrasound, and electrical stimulation. It also includes the basic principles of stretching exercises and joint mobilization techniques.

180130 Physiotherapy Techniques III 7 : 3h Prerequisite : (1801306)

This course covers the basic knowledge and principles for application of certain advanced modalities in physical therapy like laser therapy and magnetic therapy as well as the basic principles of electrodiagnosis. It also includes the basic knowledge and principles of hydrotherapy and under water exercises.

180131 Musculoskeletal Physiotherapy I 3 hours : 3h Prerequisite : (0507103)

Credit

Credit

This course covers skills in analytical thought and numerical calculation, for study of human movement disorders. This course concentrates on physical therapy assessment and treatment of different cases of traumatology including fractures, dislocations and sports injuries. This course also has detailed information concerning the process of normal and abnormal healing of fractures and the complications of fractures including those related to prolonged bed recumbence. This will include scientific study and application of selected physical therapy principles in both assessment and treatment.

180131 Musculoskeletal Physiotherapy II 8 hours : 4h Prerequisite : (1801313)

This course focuses on standard safety precautions, new research and clinical experiences concerning evaluation and treatment of different orthopaedics disease. This course concentrates on the indications, contra indications and precautions of different physical therapy techniques for treatment of surgical orthopaedics conditions. This course gives special attention to the evolution and treatment of rheumatic diseases including rheumatoid arthritis, poly myositis and a wide scale of other rheumatic conditions. This course also concentrates on different types of deformities and neonatal orthopaedics from both medical and rehabilitation point of view. This is achieved by close integration between theoretical and practical sessions.

180132Cardiopulmonary Physiotherapy I4: 3h Prerequisite (0508102)

This course covers signs and symptoms, etiology, pathology, course and prognosis of common disorders of the respiratory system, cardiopulmonary conditions, and surgical procedures. Also it concentrates on how to assess a patient with respiratory dysfunction, breathing patterns, vital capacity and chest mobility.

180132Cardiopulmonary Physiotherapy IICredit8hours : 3hPrerequisite: (1801324)

This course covers the methods of planning, implementing and evaluating conservative or post-surgical physiotherapy program for patients with cardiopulmonary disorders. The practical part will focus on how to implement all kinds of breathing exercises, postural drainage, positioning techniques, and suctioning.

180133 Neuromuscular Physiotherapy I 9 hours : 3h Prerequisite : (1801306)

Credit

Credit

This course covers basic knowledge of anatomy and physiology of the nervous system as well as different tests and measurements of the neuromuscular system. It also includes a description of the causes, clinical features, course, recovery, physical examination and the appropriate rehabilitation program of certain disorders like Hemiplegia, Ataxia, Parkinsonism and Facial palsy.

180136 Kinesiology 5 hours : 3h Prerequisite : (1803201)

This course includes forces and their effects (mechanics) and the application of mechanical principles to the human body in movement and at rest (biomechanics). It covers also the roles of muscle action (agonist, antagonist, stabilizer, and neutralizer), the relationship between the muscle's line of pull and the joint axis which affects the produced movement.

180143 Neuromuscular Physiotherapy II 4 : 4h Prerequisite : (1801339)

Credit hours

This course covers concepts, basic principles, and procedures of the common therapeutic techniques as well as the different methods of facilitation and inhibition of the neuromuscular system. It also includes a description of the causes, clinical features, course recovery, physical examination and the appropriate rehabilitation program of certain disorders like paraplegia, spinal cord injuries, disseminated sclerosis, myopathies, neuropathies, myotonias and motor neuron diseases.

180144 Pediatric Physiotherapy "1" : 3h

Credit hours

4

Prerequisite : (1801306)

This course covers basic knowledge of different aspects of child development and reflexive maturation as well as different tests and measurements for different pediatric cases. It also include a description of the causes, clinical features, course, recovery, physical examination and the appropriate rehabilitation program of certain related disorders affecting the musculoskeletal and cardiopulmonary systems .

180144 Pediatric Physiotherapy "2" hours: 3h

Credit

6

Prerequisite : (1801444)

This course covers basic concepts, basic principles, and procedures of the common therapeutic approaches used for treatment of neuro pediatric disorders. It also include a description of the course, clinical features, course recovery, physical examinations and the appropriate rehabilitation program of certain disorders like cerebral palsy, poliomyelitis, brachial plexus injury, muscle diseases, learning disabilities, and mental retardation. .

180145 **Psychiatric Physiotherapy** Prerequisite : (1801307) 7

Credit hours : 2h

This course describes the more common psychiatric disorders in terms of etiology, signs, symptoms, course and prognosis. Emphasis will be on physical functions of the body. Emphasis will be or how to plan, implement and evaluate a physiotherapy program for patients with these psychiatric disorders.

180147 **Physiotherapy In Special Cases** 1 hours : 3h Prerequisite : (1801434)

Credit

This course covers the necessary knowledge to understand, assess, evaluate and treat certain conditions. These conditions include: burns, hypertension, diabetus Mellitus, amputations, and vascular disorders and their complications and methods of rehabilitation.

180148 Physical therapy for gynecology and obstetrics Credithours : 2h

This course includes a brief knowledge about anatomy and physiology of female genital organs, normal and abnormal pregnancy and labor. It also includes the basic knowledge and skills for applying physical therapy treatment for common obstetric and gynecological conditions.

180320 Biomechanics :

(3 credit

1 hours)

pre-requisite : (0502108 + 0302103)

This subject will cover the theory of dynamics with particular application to human bodies . It also covers the active and passive mechanical behavior of the body tissues with specific applications of biomechanics of topics of interest to rehabilitation science specialties . The practicum will concentrate on development of observational skills and objective measurements of human movements .

180344 Orthotics and Prosthetics 9 hours : 3h Prerequisite : (1801365)

This course covers the basic knowledge about the materials used in making braces, splints and artificial limbs for upper limbs , lower limbs and spinal cord . It covers also which type of orthosis is needed, how to evaluate the patient and his needs, methods to train the patient how to make use of it functionally. It includes all types of walking aids, wheel chairs, application and removal of casts.

180141

9

Clinical musculskeletal physiotherapy hours : 3h

Credit

Credit

Prerequisite : (1801318)

This course involves in patient training in different orthopedic departments to have the possibility to identify different orthopedic pathologies that needs in and out patient physiotherapy, it includes history taking, physical examination, comprehensive evaluation, and application of proper physiotherapy program according to the diagnosis.

180143

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9

Clinical neuromuscular physiotherapy Credit hours: 3h Prerequisite : (1801434)

This course involves in patient training in different neurology departments to have the possibility to identify different neuromuscular pathologies that needs in and out patient physiotherapy, it includes history taking, physical examination, 180142 comprehensive evaluation, and application of proper physiotherapy program according to the diagnosis .

Clinical cardiopulmonary physiotherapy Credit hours : 2h Prerequisite : (1801318)

This course involves in patient training in different medical departments to have the possibility to identify different 180144 cardiopulmonary pathologies that needs in and out patient 7 physiotherapy, it includes history taking, physical examination, comprehensive evaluation, and application of proper physiotherapy program according to the diagnosis. Clinical pediatric physiotherapy Credit hours : 2h

Prerequisite : (1801445)

This course involves in patient training in different pediatric departments to have the possibility to identify different pediatric pathologies that needs in and out patient physiotherapy, it includes

180147 history taking, physical examination, comprehensive evaluation, 5 and application of proper physiotherapy program according to the diagnosis.

> Electrodiagnosis : 2h Prerequisite : (1801434)

Credit hours

This course provides the student with the physiological basis and techniques of the electrodiagnostic evaluation of the neuromuscular system through the use of nerve conduction studies and needle electromyography . Students learn the application of these
techniques to the upper and lower extremities , and the interpretation of results / reports through case studies . Surface and needle kinesiological electromyographic recordings for research application will be examined .

Rheumatology physiotherapy hours : 3h

Credit

180147 This course introduces the student to the major rheumatic diseases
 4 , the related pathological changes and the physiotherapy management of patients with these conditions within the context of the health care team . Emphasis is placed on holistic patient management taking account of the physical , psychological and social impact of diseases .

Sports physiotherapy 3h

Credit hours :

The propose is to introduce sport physiotherapy for the students. During the course usual acute and overuse injuries will be discussed. Acute treatment will be introduced as well as what firstaid kit for sports injuries should contain. Rehabilitation of sports injuries will be discussed and examples taken from specific injury types. Risk factors for injuries will also been discussed as well as preventive measures. Some usual methods of taping will also be introduced.

Physical therapy in Geriatrics hours : 2h

Credit

This is an introductory course in geriatrics, designed to facilitate understanding of the elderly and their special needs. Biological and functional changes due to aging are condisdered, with emphasis on necessary modification of physical therapy procedures for geriatric patients. Evaluation and treatment planning with geriatric patients will provide clinical experience and enhance learning.