MD 2nd Part

Physical Medicine and Rehabilitation

- ✓ **Course Aims:**

The broad aims of the course are as follows:

1- To enable the candidate to have the basic and professional knowledge and clinical skills necessary for diagnosis of most of handicapping problems, infirmities and other conditions in need of medical and functional rehabilitation and to have the ability of dealing with these conditions so as to minimize the handicapping and pain and maximize function of the affected organs and systems.

2- To provide fellows with the skills required to perform as well-trained, productive independent medical rehabilitation consultants and specialized health care providers for patients needing medical rehabilitation or physical therapy. This requires at least a three year commitment to the study of basis and principles as well as up to-date science of physical medicine and rehabilitation.

3- To enable the candidates to interact with community problems, respect ethical values according to community culture, and promote their medical standards through engaging in continuing medical education. The course also aims to introduce the candidate to the basics of scientific medical research.

- ✓ **Course content:**

Module 1 (3 credit hours) (45 teaching hours)	
Subjects	**Lectures** **(3 credit hr/ 15 wks)** **(3 teaching hours/week)**

▪ Clinical and vocational evaluation & principles of assessment of patients in a Rehabilitation setting.	2 hrs
▪ Psychological aspects and rehabilitation	2 hrs
▪ Functional outcome assessment, self care evaluation & management	2 hrs
▪ Disability, functional independence & handicapping evaluation.	2 hrs
▪ Principles of mechanical, manual & functional rehabilitation approaches	2 hrs
▪ Electrodiagnosis	3 hrs
▪ Electrophysiological studies of muscles in normal & pathological conditions.	12 hrs
▪ Nerve conduction studies.	12 hrs
▪ Neuromuscular junction studies.	4 hrs
▪ Electric stimulation and therapy	4 hrs
Module 2 (3 credit hours) (45 teaching hours)	
Subjects	**Lectures** **(3 credit hr/ 15 wks)** **(3 teaching hours/week)**
▪ Heat therapy	4 hrs
▪ Cold therapy	1 hr
▪ Laser	2 hrs
▪ Electromagnetic therapy	2 hrs
▪ Hydrotherapy.	1 hr
▪ Traction	2 hrs
▪ Manipulation.	2 hrs

▪ Massage	2 hrs
▪ Therapeutic exercise	3 hrs
▪ Adaptive system and devices for disabled patients	2 hrs
▪ Upper limb orthosis & prosthesis	6 hrs
▪ Lower limb orthosis & prosthesis.	6 hrs
▪ Spinal orthosis (cervical, lumbar, thoraco-lumbar)	8 hrs
▪ Transfer, wheelchairs and walking aids	4 hrs

Module 3 (3 credit hours) (45 teaching hours)

Subjects	**Lectures** **(3 credit hr/ 15 wks)** **(3 teaching hours/week)**
▪ Rehabilitation of patients with arthritis	2 hrs
▪ Rehabilitation of patients with pain	2 hrs
▪ Rehabilitation of patients with stroke.	4 hrs
▪ Rehabilitation of patients with spinal cord injuries	3 hrs
▪ Rehabilitation of patients with multiple sclerosis.	2 hrs
▪ Rehabilitation of patients with Neurogenic bladder and bowel.	2 hrs
▪ Rehabilitation of spasticity and abnormalities of muscle tone	3 hrs
▪ Rehabilitation of orthopedic and traumatic conditions	2 hrs
▪ Rehabilitation of scoliosis	3 hrs
▪ Rehabilitation of amputee	2 hrs
▪ Rehabilitation after joint replacement surgery	3 hrs
▪ Gait training	3 hrs
▪ Rehabilitation of osteoporosis	2 hrs
▪ Rehabilitation of cardiac patients	2 hrs
▪ Rehabilitation of patients with pulmonary diseases	3 hrs
▪ Rehabilitation of patients with vascular diseases	2 hrs

▪ Rehabilitation of diabetic foot patients	3 hrs
▪ Rehabilitation of gynecological & obstetric disorders	2 hrs
Module 4 (2 credit hours) (30 teaching hours)	
Subjects	**Lectures** **(2 credit hrs/ 15 wks)** **(2 teaching hours/week)**
Training of functional independence	2 hrs
Immobilization syndrome and bed ulcers	2 hrs
Rehabilitation of patients with burn	2 hrs
Swallowing disorders rehabilitation	2 hrs
Auditory disorders rehabilitation	2 hrs
Rehabilitation of Speech, language communication disorders	2 hrs
Rehabilitation of patients with movement disorders	2 hrs
Rehabilitation of cancer patients	2 hrs
Vestibular rehabilitation	2 hrs
Rehabilitation of the blind	2 hrs
Rehabilitation of degenerative spine & peripheral joints diseases	2 hrs
Rehabilitation of sexual problems in disabled patients.	2 hrs
Vocational rehabilitation	2 hrs
Industrial rehabilitation	2 hrs
Nutritional aspects of rehabilitation	2 hrs

- ✓ **Clinical training for MD students (210 teaching hours) for one year**

Clinical skill	**Teaching hours**
Module I (60 clinical hours)	
▪ Evaluate the clinical status and perform vocational evaluation & assessment of patients in a Rehabilitation setting.	4 hrs
▪ Assess functional outcome & evaluate patient's self care	2 hrs
▪ Evaluate disability, functional independence & handicapping.	2 hr
▪ Perform and apply Electrodiagnosis	4 hrs
▪ Perform, apply electrophysiological studies of muscles (EMG) in normal and pathological conditions, write and interpret their reports	16 hrs
▪ Perform, apply Nerve conduction velocity studies (NCV), write and interpret reports.	20 hrs
▪ Perform, apply Neuromuscular junction studies,), write and interpret reports.	8 hrs
▪ Prescribe and apply electrotherapy	4 hrs
Module II (60 clinical hours)	
▪ Prescribe and apply different modalities of Heat therapy	6 hrs
▪ Prescribe and apply Cold therapy	2 hrs
▪ Prescribe and apply Laser therapy for musculoskeletal system	4 hrs
▪ Prescribe and apply Electromagnetic therapy	4 hrs
▪ Prescribe and apply Hydrotherapy.	2 hrs
▪ Prescribe and apply cervical and lumbar spine Traction	4 hrs
▪ Prescribe and perform Manipulation.	4 hrs
▪ Prescribe and apply Massage	2 hrs

▪ Prescribe and apply Therapeutic exercise	4 hrs
▪ Prescribe and adapt Upper limb orthosis & prosthesis to patients in need	8 hrs
▪ Prescribe and adapt Lower limb orthosis & prosthesis.	8 hrs
▪ Prescribe and adapt Spinal orthosis (cervical, lumbar, thoraco-lumbar)	8 hrs
▪ Prescribe and use wheelchairs and walking aids	4 hrs
Module III (45 clinical hours)	
▪ Design and follow up rehabilitation program of patients with arthritis	2 hrs
▪ Design and follow up rehabilitation program of patients with pain	2 hrs
▪ Design and follow up rehabilitation program of patients with stroke.	3 hrs
▪ Design and follow up rehabilitation program of patients with spinal cord injuries	3 hrs
▪ Design and follow up rehabilitation program of patients with multiple sclerosis.	2 hrs
▪ Design and follow up rehabilitation program of patients with Neurogenic bladder and bowel.	2 hrs
▪ Design and follow up rehabilitation program of spasticity and abnormalities of muscle tone	3 hrs
▪ Design and follow up rehabilitation program of orthopedic and traumatic conditions	3 hrs
▪ Design and follow up rehabilitation program of scoliosis	3 hrs
▪ Design and follow up rehabilitation program of amputee	3 hrs
▪ Design and follow up rehabilitation program after joint replacement surgery	3 hrs
▪ Apply Gait training	3 hrs
▪ Design and follow up rehabilitation program of osteoporosis	2 hrs
▪ Design and follow up rehabilitation program of cardiac patients	2 hrs

▪ Design and follow up rehabilitation program of patients with pulmonary diseases	3 hrs
▪ Design and follow up rehabilitation program of patients with vascular diseases	2 hrs
▪ Design and follow up rehabilitation program of diabetic foot patients	2 hrs
▪ Design and follow up rehabilitation program of gynecological & obstetric disorders	2 hrs
Module VI (45 clinical hours)	
Training of functional independence	4 hrs
Evaluate and manage immobilization syndrome and bed ulcers	4 hrs
Design and evaluate rehabilitation program of patients with burn	4 hrs
Design and evaluate swallowing disorders rehabilitation program	4 hrs
Apply and evaluate auditory disorders rehabilitation program	4 hrs
Apply and evaluate rehabilitation of Speech, language communication disorders	4 hrs
Apply rehabilitation of patients with movement disorders	4 hrs
Design and evaluate rehabilitation program of cancer patients	4 hrs
Apply and evaluate Vestibular rehabilitation	4 hrs
Design and evaluate rehabilitation program of the blind	4 hrs
Design and apply rehabilitation program of degenerative spine & peripheral joints diseases	5 hrs