Master Degree Program Specification
of Rheumatology, Physical Medicine and Rehabilitation

Prepared by: Dr. Shereen Aly Machaly
Rheumatology and Rehabilitation Department
Faculty of Medicine– Mansoura University

PROGRAMME SPECIFICATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme Title & Code	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(2) Final award/degree	Master of science degree (M.Sc)
(3) Department (s)	Rheumatology & Rehabilitation and Physical Medicine department
(4) Coordinator	Dr. Shereen Aly Machaly
(5) External evaluator (s)	Prof Dr/ Abdel-Samad El-Hewala Professor of Rheumatology and Rehabilitation-Zagazeg University
(6) Date of approval by the Department`s council	8/2016
(7) Date of last approval of programme specification by Faculty council	9/8/2016

(B) Professional information

(1) Programme Aims: The broad aims of the Programme are as follows:

1- To provide basic, in-depth and professional knowledge of rheumatic diseases, how to select the proper diagnostic tools and to construct appropriate and optimal management strategies (including medical, physical and rehabilitation medicine).
2- To produce scientifically and professionally clinical Rheumatologists, to meet regional and national needs while developing study skills and attitudes suitable for life-long learning.
3- To prepare physicians as senior physical and rehabilitation medicine specialists capable of practicing Physiotherapy and Rehabilitation medicine in academic and clinical settings, provide them with the practical skills and abilities for continuous medical education.
4- Allow candidates to prepare a research proposal and dissertation for an original, self-directed thesis. This should be based on a research question focusing on a real problem.

(2) Intended Learning Outcomes (ILOs):

Intended learning outcomes (ILOs); Are four main categories, knowledge & understanding to be gained, intellectual qualities, professional/practical and transferable skills.

A- Knowledge and Understanding

On successful completion of the programme, the candidate will be able to:

A1- Describe basic anatomy, relevant to the musculoskeletal system including anatomy of lumbosacral and brachial plexuses, different dermatomes, brain and spinal cord.
A2- Recognize the basic principles of structure of the different joints of the human body as joints of upper and lower limbs, their biomechanics and how each adapts to its function with the muscles acting upon each joint.

A3- Identify theories and fundamentals related to the physiology of joints, nerves and muscles and other systems which have impact on musculoskeletal system like CVS. Respiratory and endocrinal systems.

A4- Identify theories and fundamentals related to the immune system of human, immune and inflammatory response, autoimmunity, immunoglobulins and autoantibodies.

A5- Outline epidemiology, frequency and risk factors of the spectrum of diseases affecting the musculoskeletal system (e.g. RA, SLE, systemic sclerosis. Dermato- and polymyositis, spondyloarthropathies, OA... etc..).

A6- Identify clinical and molecular genetics, aetiology, pathogenesis, and basic mechanisms of rheumatic diseases and related disorders (e.g. RA, SLE, Sjogren disease, OA, gout…etc..).

A7- Recognize pathological cascades of patients with musculoskeletal complaint, and describe the basic pathology of systemic and regional musculoskeletal disorders and relevant common internal medicine diseases and identify their mutual influence.

A8- Identify the spectrum of clinical symptoms and signs of musculoskeletal and rheumatic disorders (as rheumatoid arthritis, osteoarthritis, low back pain...etc...) and common medical conditions with multisystem affection (as diabetes mellitus, endocrinological, haematological disorders, ..etc...).

A9- Explain and list indications of laboratory tests, physical tests and imaging procedures used in diagnosis and monitoring of different rheumatic, orthopedic, neurologic disorders and others in need for rehabilitation.

A10- Identify indications, advantages, and limitations for electrodiagnostic studies, electromyography and nerve conduction studies.

A11- Recognize pharmacology and pharmacokinetics - including drug metabolism, adverse effects, indications and interactions- of commonly used drugs in treatment of rheumatic diseases (steroids, NSIADs, DMARDs, uric acid lowering drugs, anti-osteoporotic and biological drugs) .

A12- Describe basic. principles of rehabilitation medicine, impairments, disability and handicapping.

A13- Recognize principles of assessment, evaluation and management of patients in a Rehabilitation setting.

A14- Describe mechanical, manual and functional rehabilitation approaches.

A 15- Identify different categories of physiotherapy modalities (as ultrasound, electrotherapy, Laser, cryotherapy…etc…) and understand their physiologic effects on soft tissues and describe their various mechanisms related to the management of rheumatic, orthopedic,' neurological and other disorders.

A16- Identify benefits and hazards of uses of physical agents in the field of rheumatology and rehabilitation medicine.

A17- Describe exercise guidelines, benefits and hazards and understand physiologic effect of exercise on soft tissues.

A18- Identify basics of ethics, medicolegal aspects, malpractice and common medical errors in rheumatology & rehabilitation medicine.

A19- Identify principles, methodology, tools and ethics of scientific research in rheumatology and rehabilitation medicine fields.

A20- Identify psychological theories and considerations of aging, cognitive impairment, delirium, dementia and Alzheimer's disease

A21- Identify nutritional considerations with aging ,drugs and function in the elderly.

A22- Identify risk factor of fall and diagnostic work up for osteoporosis

A23- know the principles of rehabilitation of handicapping and disabilities in adolescents and children.

A 24- Recognize the basic rehabilitation of traumatic brain and spinal cord injuries, stroke, CP and spasticity in pediatric age group.

A25- Identify various types of sport injuries of different joints and body regions with their underlying mechanisms.

A26- Learn the proper management strategies and rehabilitation of diverse sport injuries.

A27- Identify the genetic basis of auto immune diseases, immunotherapy and blood banks.

B- Intellectual skills:

B1- Integrate the anatomy of the muscles, nerves and vertebral column of the human body with clinical examination of musculoskeletal system and utilize major clinical applications of anatomical facts.

B2- Apply the surface landmarks of the underlying joints, bones, muscles and tendons in clinical examination of these parts, diagnosis of specific disorders of these structures and therapeutic injection.

B3- Analyze and evaluate the information of the body physiology and analogies to manage rheumatological and musculoskeletal problems.

B4- Incorporate the available information of the body immunology with the collected clinical data to diagnose and treat autoimmune, systemic and regional rheumatological and musculoskeletal diseases.

B5- Assimilate basic science of pathology, genetics, immunology, and biochemistry of connective tissue, bone, joint, and muscle in evaluation, diagnosis and prognosis of patients with rheumatic disorders and/or patients in rehabilitation setting.

B6- Integrate patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis of various systemic and regional musculoskeletal disorders.

B7- Differentiate between types of arthritis and other musculoskeletal disorders and predict prognoses

B8- Integrate knowledge of physical science in the context of managing different musculoskeletal disorders according to the type of lesion.

B9- Select from different diagnostic alternatives and interpret various diagnostic procedures to reach a final diagnosis.

B10- Combine the use of nonsteroidal anti-inflammatory drugs, disease modifying drugs, biological response modifiers, glucocorticoids, cytotoxic drugs, antihyperuricemic drugs, and antibiotic therapy (for septic arthritis) into the medical care of patients and monitor their effects.

B11-Formulate appropriate management plans for individual patients presenting with musculoskeletal diseases, autoimmune rheumatological disorders and related internal medical disorders.

B12- Apply physical medicine and design rehabilitation program in patients with rheunratologic, neurological, orthopedics and other medical disorders.

B13- Compose exercise/therapy prescription with specific diagnosis and recommended emphasis of treatment.

B14- Describe, prescribe and evaluate supporting & substituting devices of different parts of the body.

B15- Apply appropriate assessment & measurement tools to evaluate functional status or outcomes of type of treatment used.

B16- Assess risks in the clinical emergencies in the field of rheumatology and rehabilitation

B17- Apply ethical issues' and resolve ethical dilemmas in relation to clinical practice

B18- Construct and apply rehabilitation programme for malnutrition, Alzheimer's disease and other disorders commonly encountered in elderly.

B19- Apply rehabilitation programme for prevention of fall and for osteoporosis including prevention and treatment especially in geriatrics.

B20- Evaluate and manage different types of elbow, wrist and hand sport injuries.

B21- Evaluate and deal with different types of foot, ankle, knee and lower leg sport injuries.

B22- Evaluate and construct rehabilitation of different types of spinal injuries (neck, upper and lower back) and head, chest and abdominal injuries.

B23- Design and assess rehabilitation of congenital and acquired disabilities, spasticity, CP, amputee, abnormal gaits, juvenile RA,...etc..in pediatric age group

B24- Integrate the advanced immunology and genetic information into evaluation and diagnosis of autoimmune rheumatic disease

B25- Apply immune-therapy in the management of autoimmune disease.

B26- Critically evaluate research; design and conduct of a research project

C- Professional/practical skills

C1- Take a good medical history, conduct a proper general examination, demonstrate normal and abnormal physical signs and develop the clinical skills of eliciting abnormal physical signs in the examination of various systems e.g. CVS, respiratory, GIT,endocrinal...etc...

C2- Examine patients, to include a specific examination of structure and function of all joints, both axial and peripheral, as well as peri-articular structure and muscle units, to evaluate the musculoskeletal system and nervous system in an accurate manner

C3- Apply the anatomical facts during musculoskeletal examination in order to reach a proper diagnosis.

C4- Demonstrate appropriate positioning in relation to the patient in the exam room to facilitate good rapport with patients.

C5- Perform diagnostic aspiration and analysis of synovial fluid.

C6- Perform professionally clinical examination and evaluation of rheumatological diseases as RA, SLE, scleroderma, ankylosing spondylitis, OA,... etc.....

C7- Apply and integrate knowledge of electrophysiology to perform and interpret electromyography and nerve conduction studies. Use of electrophysiological studies in biofeedback mechanisms in rehabilitation of certain patients.

C8- Interpret bone and joint imaging techniques applying the facts of anatomical structures and interpret bone density measurement.

C9- Perform therapeutic injection of synovial joints, bursae, tenosynovial structures and enthuses.

C10- Write and evaluate medical reports, clinical sheets including all collected data relevant to the patient's condition and physiotherapy treatment regimen sheets.

C11- Deal efficiently with physiotherapy modalities and professional prescribing for appropriate conditions with proper positioning of the patient.

C12- Apply sound ethical principles in practice (e.g., informed consent, confidentiality, veracity, provision or withholding of care).

D- Communication & Transferable skills

D1- Be prepared for the lifelong learning needs of the profession in rheumatology & rehabilitation medicine, and continue to self-learning and self-evaluation. Demonstrate personal learning needs and set learning and improvement goals.

D2- Use information and communication technology effectively and use different resources to gain knowledge and information related to rheumatology and rehabilitation medicine.

D3- Retrieve, manage, and manipulate information by all means.

D4- Present clearly, and effectively a scientific topic in front of audience using computer and power point skills. Demonstrate an educational role in the course by communicating their understanding to their peer groups, by means of presentations and lectures.

D5- Communicate ideas and arguments effectively in their different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D6- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D7- Demonstrate caring/respectful behaviors with patients and staff.

D8- Demonstrate ability to articulate the risks and benefits of different treatment options to patients, present information to patients, family members, caregivers & other health care providers in an effective manner and establish trust and maintain positive rapport with patients.

D9- Analyze and use numerical data including the use of simple statistical methods.

D10- Discover strengths, deficiencies, and limits in one's knowledge and expertise.

D11-Recognize one's own limitation of knowledge and skills and refer patients to appropriate specialized health facility at appropriate stage.

D12- Accept personal responsibility for own actions & decisions.

D13- Demonstrate responsiveness to patient needs that supersedes self-interest and demonstrate compassion, integrity, and respect for all patient's rights and treat all patients equally regardless to their believes, culture and behavior.

D14- Demonstrate respect for patient privacy and autonomy, accountability to patients, society and the profession.

D15- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation. Consider effects of personal, social and cultural factors in the disease process and patient management.

D16- Maintain comprehensive, timely, and legible medical records, if applicable.

(3) Academic standards

3.a- External reference points/benchmarks are selected to confirm the appropriateness of the objectives, ILOs and structure of assessment of the programme:

1) University of Oxford, Nuffield Department of Orthopaedics, Rheumatology and Musculoskeletal Sciences, - MSc in Rheumatology. The Nuffield Orthopaedic Centre (NOC), is the largest musculoskeletal clinical centre in the UK, and a world class centre for orthopaedic and rheumatic diseases. https://www.ndorms.ox.ac.uk/graduate-courses/msc-musculoskeletal-sciences/programme

2) King's College London, School of medicine- MSc in Rheumatology. http://www.kcl.ac.uk/prospectus/graduafe/index/name/Fheuniatology

3.b Comparison of the specification to the selected external reference/ benchmark:

- All programme aims of the Benchmarks are covered by the current program.
- The programme courses are matched by 90% degree to those offered by the international universities (as regard rheumatology courses) except in the context and number of credit hours, and the methods of assessment.
- About University of Oxford, they offer optional modules. Our Msc. Program has compulsory modules (6 courses in the first part and 2 courses in the second part) which include all the core modules offered by them as components of rheumatology courses. However, they don't have separate courses for physical medicine and rehabilitation as we do. Instead they offer two optional modules either advanced rheumatology or orthopedic courses, meanwhile we offer 4 optional modules the fellow has to chose one of them.

(4) Curriculum structure and contents :

4.a- Duration of the programme : 4 semesters

4.b- programme structure:

- The programme consists of two parts; (1) the first part composed of six courses which are: Applied Anatomy, Applied Physiology, Internal Medicine, Applied Physics, Basic of clinical Immunology and Regional Musculoskeletal Disorders. (2) The second part composed of two courses; Rheumatology & Immunology and Physical Medicine & Rehabilitation. All are compulsory courses. In addition to one optional course chosen by the candidate from 4 available courses
- Candidates should fulfill a total of 45 credit hours.

4.b.1: Number of credit hours (minimum)

First part: 5 credit hours.

Second part: 18 credit hours.

Thesis: 6 credit hours.

Other scientific activities: 2 credit hours.

Activities included in the log book: 14, credit hours

4.b.2: Teaching hours/week: referred to the tables of first and second parts courses below

(5) Programme courses :

First part (15 weeks duration / 6 months)

a. Compulsory courses:

Course Title	Course Code	NO. of hours per week			Total teaching hours/15 weeks	Programme ILOs covered (REFERRING TO MATRIX)
		Lectures	Clinical hours	Total credits		
Applied Anatomy	REH 501	0.5 hr/wk For15wks	------	0.5 h Credit	7.5 hrs	A1, A2, B1, B2
Applied Physiology	REH 503	0.5 hr/wk For15wks	------	0.5 h Credit	7.5 hrs	A3 B3
Internal Medicine	REH510 REH510C	1hr/week For 15wks	1hr/wk For 15wks	1 Credit + 0.5 h Credit (clinical)	30 hrs	A7, A8 B11 C1,C12 D 5-8,11-15
Applied physics	REH516 AP	1hr/week For 15wks	------	1Credit	15 hrs	A 15,16,17 B 8
Regional Musculoskeletal disorders	REH516 MD	1hr/week For 15wks	-------	1Credit	15 hrs	A7 B 6
Basics of clinical Immunology	REH 530	1hr/week For 15wks	------	1Credit	15 hrs	A3 B4, B5

b. Elective courses: none

Second part (45 weeks over 3 semesters)

a. Compulsory courses:

1. Rheumatology and Immunology.

2. Physical Medicine and Rehabilitation.

b. elective courses:

1- Geriatric rehabilitation.

2- Pediatric rehabilitation.

3- Rehabilitation of sport injuries.

4- Clinical immunology (advanced course).

Course Title	Course Code	NO. of hours per week			Total teaching hours/45 weeks	Programme ILOs covered (REFERRING TO MATRIX)
		Lectures	Clinical	Total credits		
Rheumatology and Immunology	REH 516RH	**120hrs /45wks**	**210hrs /45wks**	**8 Credit** (lectures) **+7credit** (clinical)	**330 hours**	A 5 – 9, 11 B 5–,7, 9–11,16,17, 26 C2–C6, 8, 9,10,12 D all
Physical Medicine and Rehabilitation,	REH 516 PMR	**105 hrs/ 45W**	**195 hrs /45w**	**7 Credit** (lectures) **+6.5credit** (clinical)	**300 hours**	A 10, 12–15, 17–19 B 12 –17, 26 C 2 ,7,10, 11,12 D all
Geriatric Rehabilitation	REH 516 GR	**3hrs/week For 15 weeks**		**3 Credit**	**45 hrs**	A20, 21,22 ,B 18,19
Pediatric Rehabilitation	REH 516 PR	**3hrs/week For 15 weeks**		**3 Credit**	**45 hrs**	A23, 24 B 23
Rehabilitation of Sport injuries	REH 516 RSI	**3hrs/week For 15 weeks**		**3 Credit**	**45 hrs**	A 25,26 B 20, 21,22
Clinical Immunology (advanced course)	REH 516 CI	**3hrs/week For 15 weeks**		**3 Credit**	**45 hrs**	A 27 B 24,25

I. Aims and knowledge ILOs:

	A 1	A 2	A 3	A 4	A 5	A 6	A 7	A 8	A 9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21	A 22	A 23	A 24	A 25	A 26	A 27
Objective 1	×	×	×	×	×	×	×	×	×		×							×									×
Objective 2	×	×	×	×	×	×	×	×	×		×							×									×
Objective 3									×	×		×	×	×	×	×	×	×		×	×	×	×	×	×	×	
Objective 4																			×								

II. Aims and intellectual skills ILOS:

	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	B 14	B 15	B 16	B 17	B 18	B 19	B 20	B 21	B 22	B 23	B 24	B 25	B 26
Objective 1	×	×	×	×	×	×	×		×	×	×				×	×	×							×	×	
Objective 2	×	×	×	×	×	×	×		×	×	×				×	×	×							×	×	
Objective 3								×				×	×	×	×	×	×	×	×	×	×	×	×			
Objective 4																										×

III Aims and professional/practical skills:

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Objective 1	×	×	×	×	×	×		×	×	×		×
Objective2	×	×	×	×	×	×		×	×	×		×
Objective 3							×	×		×	×	×
Objective 4												

IV Aims and communication & transferable skills

	D1	D2	D3	D4	D5	D6	D7	D8	D9	D10	D11	D12	D13	D14	D15	D16
Objective 1	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×
Objective2	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×
Objective 3	×	×	×	×	×	×	×	×		×	×	×	×	×	×	×
Objective 4			×	×					×							×

Programme-Courses ILOs Matrix

Programme ILOs are enlisted in the first row of the table (by their code number: a1, a2……etc), then the course titles or codes are enlisted in first column, and an "x" mark is inserted where the respective course contributes to the achievement of the programme ILOs in question.

Course Title/Code	Programme ILOs																																												
	A1	A2	A3	A4	A5	A6	A7	A8	A9	A 10	A 11	A 12	A 13	A 14	A 15	A 16	A 17	A 18	A 19	A 20	A 21	A 22	A 23	A 24	A 25	A 26	A 27	B 1	B 2	B 3	B 4	B 5	B 6	B 7	B 8	B 9	B 10	B 11	B 12	B 13	B 14	B 15	B 16	B 17	B 18	B 19	B 20	B 21	B 22	B 23
Applied anatomy	x	x																										x	x																					
Applied physiology			x																											x																			
Internal Medicine							x	x																													x											
Applied physics															x	x	x																			x												
Regional musculoskeletal disorders							x																										x														
Basics of clinical immunology			x																											x	x																	
Rheumatology & immunology					x	x	x	x	x		x																				x	x	x			x	x	x				x	x	x					
Physical medicine and rehabilitation										x		x	x	x	x		x	x	x																				x	x	x	x	x	x					
Geriatric Rehab.																				x	x	x																							x	x				
Pediatric Rehab.																							x	x																									x
Rehabilitation of sport injuries																									x	x																			x	x	x	
Clinical Immunology (advanced course																											x																					

Course Title/Code	Programme ILOs																																		
	B 24	B 25	B 26		C1	C2	C3	C4	C5	C6	C7	C8	C9	C 10	C 11	C 12		D1	D2	D3	D4	D5	D6	D7	D8	D9	D 10	D 11	D 12	D 13	D 14	D 15	D 16
Applied anatomy																																			
Applied physiology																																			
Internal Medicine					x											x						x	x	x	x			x	x	x	x	x		
Applied physics																																			
Regional musculoskeletal disorders																																			
Basics of clinical immunology																																			
Rheumatology & immunology			x			x	x	x	x	x		x	x	x		x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Physical medicine and rehabilitation			x			x					x			x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Geriatric Rehab.																																			
Pediatric Rehab.																																			
Rehabilitation of sport injuries																																			
Clinical Immunology (advanced course	x	x																																	

(6) Programme admission requirements :

- **General requirements:**

  According to the faculty postgraduate bylaws Appendix IV.

- **Specific requirements (if applicable):**

  No specific requirements

(7) Regulations for progression and programme completion:

- Student must complete minimum of 45 credit hours in order to obtain the Msc. degree, which include the courses of first and second parts, thesis and activities of the log book.
- Courses descriptions are included in Appendix III.
- Registration for the Msc. thesis is allowed one semester from the day of registration to the programme and must fulfill a total of 6 credit hours including material collection, patients selection and evaluation, laboratory work, patients follow-up, and meetings with supervisors.

Log book fulfillment:

- Student must fulfill a minimum of 14 credit of log book activities including;

1- Rotational clinical training in the general and specialized outpatients clinics of rheumatology & rehabilitation department including rheumatology, obesity, low back pain, pediatric and local injection clinics. Clinical training must include also in-patients hospital requests.

2- Rotational training on all physiotherapy and rehabilitation units including; rheumatic diseases rehabilitation, orthopedic rehabilitation, neurological rehabilitation, spine, obesity units.

3- Electromyography and nerve conduction studies clinical training.

4- conferences attendance or speaking.

- Student must present at least 2 case presentations, 2 rheumatology lectures, 2 rehabilitation lectures, one orthosis & prosthesis seminar, one musculoskeletal radiology seminar, 2 journal club seminars.
- Lectures and seminars of the previously described courses must be documented in the log book and signed by the lecturer.
- Works related to thesis must be documented in the log book and signed by the supervisors.
- Any workshops, conferences and scientific meetings should be included in the log book and candidate must attend twenty five weekly department meeting, ten Rheumatology & Rehabilitation thesis discussion, five Rheumatology conferences.

Final exam:

First part

Tools	Mark	Percentage of the total mark
Written exam:		
- Applied anatomy (3 papers with time allowed 3 hours)	48	
- Applied physiology	48	
- Clinical immunology	48	
- Internal medicine (2 papers with time allowed 3 hours)	72	
- Regional musculoskeletal disorders	72	
- Applied physics (one paper with time allowed 3hrs)	144	
MCQ exam:		
- Applied anatomy	12	
- Applied physiology	12	
- Clinical immunology	12	
	18	

- Internal medicine - Regional musculoskeletal disorders - Applied physics	18 36	
Oral exam: - Applied anatomy - Applied physiology - Clinical immunology - Internal medicine - Regional musculoskeletal disorders - Applied physics	 40 40 40 30 60 120	
Practical exam.: - Internal medicine	 30	
Total marks:	900	

Second part

Tools	Mark	Percentage of the total mark
Written exam - Rheumatology (one paper with time allowed 3 hours) - Rehabilitation (one paper with time allowed 3 hours) - Elective course (one paper with time allowed 1 hour)	 160 160 80	
MCQ exam: - Rheumatology - Rehabilitation - Optional module	 40 40 20	
Oral exam		

- Rheumatology and immunology - Physical medicine and rehabilitation	100 100	
Practical exam - Rheumatology and Immunology - Physical medicine and rehabilitation	100 100	
OSCE clinical exam Physical medicine and rehabilitation	100	
Total marks	1000	

(8) Evaluation of Programme's intended learning outcomes (ILOs):

Evaluator	Tools*	Signature
Internal evaluator (s)	Focus group discussion Meetings	
External Evaluator (s) Prof.Dr. Abdel-Samad El-Hewala	Reviewing according to external evaluator checklist report.	
Senior student (s) Dr.		
Alumni	None	
Stakeholder (s)	None	
others	None	

* TOOLS= QUESTIONNAIRE, INTERVIEW, WORKSHOP, COMMUNICATION, E_MAIL

We certify that all information required to deliver this programme is contained in the above specification and will be implemented. All course specification for this programme are in place.	
Programme coordinator: **Name:** Shereen Aly Machaly	Signature & date:
Head of the department: Prof Dr Basma El-Kady	Signature & date:
Dean: **Name:** Prof Dr El-Saeid Abdel-Hady	Signature & date:
Executive director of the quality assurance unit: **Name:**	Signature & date:


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
OF
APPLIED ANATOMY
(REH 501)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION
OF APPLIED ANATOMY
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Master of Science in physical medicine, Rehabilitation and Rheumatology
(2) Department offering the programme:	Physical Medicine, Rehabilitation and Rheumatology
(3) Department responsible for teaching the course:	Anatomy Department
(4) Part of the programme:	First semester
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Applied anatomy
(8) Course code:	REH 501
(9) Credit hours:	0.5 hour
(10) Total teaching hours:	7.5 Hours/15 weeks

(B) Professional information

(1) Course Aims:

- To provide the candidate with knowledge concerning the normal structure of the vertebral column, trunk, upper and lower limbs
- To enable the student to become proficient in function and structure of the joints of the human body and to correlate anatomical facts with their clinical applications.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Describe basic anatomy, relevant to the musculoskeletal system including anatomy of lumbosacral and brachial plexuses, different dermatomes, brain and spinal cord.

A 2 - Recognize the basic principles of structure of the different joints of the human body, their biomechanics and how each adapts to its function with the muscles acting upon each joint.

B- Intellectual skills

B1- Integrate the anatomy of the muscles, nerves and vertebral column of the human body with clinical examination of musculoskeletal system and utilize major clinical applications of anatomical facts.

B2-Apply the surface landmarks of the underlying joints , bones, muscles and tendons in clinical examination of these parts, diagnosis of specific disorders of these structures and therapeutic injection.

Objective	Aim			
	A1	A2	B1	B2
1	×	×		
2			×	×

(3) Course content:

Subjects	Lectures	Total Teaching Hours (7.5 hrs/ 15 weeks)
- Gross anatomy of central nerves system - Cranial nerves.	0.5 hrs/wk for 3 weeks	1.5 hrs
- Spinal nerves and dermatomes - Nerve plexuses (cervical, brachial, lumber and sacral)	0.5 hrs/wk for 3 weeks	1.5 hrs
- Muscles of the body	0.5 hrs/wk for 3 weeks	1.5 hrs
- Vertebral column - Joints of the body	0.5 hrs/wk for 3 weeks	1.5 hrs
- Surface anatomy	0.5 hrs/wk for 3 weeks	1.5 hrs

(4) Teaching methods

4,1 Lectures

4.2 Seminars

(5) Assessment methods:

5.1 written exam: to assess $A_{1,2}$

5.2 Oral exam : to assess $A1,_2$ $B_{1,2}$

5.3 Log book : to assess $B_{1,2}$

Assessment schedule:

to assessment knowledge and intellectual ILOS

Percentage of each Assessment to the total mark:

Written exam.: 48marks

MCQ: 12marks

Oral exam.: 40 marks.

(6) References of the course,

6.1: Handbooks: .....Lecture notes handed to student .....

6.2 : Text books:

Last's textbook of regional and applied anatomy. Gray's anatomy

6.3 journals:.....Am J of anatomy.....

.....Anatomical record.....

6.4 : Websites:

WWW.visiblebody.com

http://science.nhmccd.eud/biol/apl.html

http://anatomy- interactive.org

Course coordinator: Dr Shereen Aly Machaly

Head of the Department: Prof. Dr. Basma El-Kady

Date: /8/2016


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
OF
APPLIED PHYSIOLOGY
(REH 503)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION

OF APPLIED PHYSIOLOGY

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology, Physical medicine and Rehabilitation /REH 500
(2) Department offering the programme:	Physical medicine, Rehabilitation and Rheumatology Department
(3) Department responsible for teaching the course:	Physiology Department
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	-8-2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Applied physiology
(8) Course code:	REH 503
(9) Credit hour	0.5 hour
(10) Total teaching hours:	7.5 hrs/ 15 weeks

(B) Professional information

(1) Course Aims.

The broad aims of the course are as follows:

The course provides fellows with the ability to apply specialized knowledge in physiological science and integrate the knowledge in relations to professional practice

(2) Intended Learning Outcomes (ILOS) :

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Identify theories and fundamentals related to the physiology of musculoskeletal system.

A2-Descibe exercise guidelines, benefits and hazards and understand physiologic effect of exercise on soft tissues.

B- Intellectual skills

B1- Analyze and evaluate the information of the body physiology and analogies to solve rheumatological and musculoskeletal problems.

B2- Integrate the information of the nerve and muscle physiology in electrodiagnosis and analogies to manage neurological and muscular problems.

(3) Course content :

Subjects		Lectures 0.5 hr/week For 15 weeks	Total Teaching Hours (7.5 hrs/ 15 weeks)
Blood	Anaemias	0.5 hr/wk for 1w	0.5 hr
Endocrine	Ca++	0.5 hr/wk for 1w	0.5 hr
	Suprarenal cortex		
	Thyroid hormones		
Kidney	RBF	0.5 hr/wk for 1w	0.5 hr
	GFR		
Respiration	Work of breathing	0.5 hr/wk for 1w	0.5 hr
	Pulmonary ventilation		
	Hypoxia		
	Pulmonary function test		
CVS	Regulation of HR	0.5 hr/wk for 1w	0.5 hr
	Regulation of Blood Pressure		
	Cardiac reserve		
	Effect of exercise on CVS		
Autonomic Nervous System (chemical transmitters)		0.5 hr/wk for one week	0.5 hr
Metabolism	Energy balance	0.5 hr/wk for one week	0.5 hr
	Obesity		
	Sports physiology		
Digestion	Gastric secretion	0.5 hr/wk for one week	0.5 hr

CNS	Receptors	0.5 hr/wk for one week	0.5 hr
	Ascending & descending tracts		
	Control of motor activity		
	Postural reflexes		
Muscle & Nerve	(all topics except smooth muscle)	0.5 hr/wk for 6 weeks	3 hrs

(4) Teaching methods

4.1.....Lectures.....

4.2.....Seminars ……..…….

(5) Assessment methods:

5.1 Final written exam: to assessment of knowledge and intellectual ILOS

5.2 MCQ exam : to assessment knowledge and intellectual ILOS

5.3 Oral Exam for assessment knowledge and transferable ILOS

5.3 Log book : to assessment of ……. intellectual ILOS

Assessment schedule:

Assessment 1: at the end of 1st semester

Assessment 2. at the end of 1st semester

Assessment 3 : at the end of 1st semester

Percentage of each Assessment to the total mark:

Written exam: 48 marks

written MCQ ……12 marks ……..

Oral exam ……40 marks ……..

Other assessment without marks:

(6) References of the course :

6.1 : Hand books:……..

6.2 Text books: .....Human physiology: from cells to systems, by Lauralee Sherwood

6.3 Journals……..Physiological Reviews…. &.....Physiology

6.4: Websites:…….. http://www.the-aps.org/ ……..

6.5:Others:……...

Facilities for teaching the course:

- Laptop and data show projector
- Laser pointer and white board
- Comfortable and well prepared classroom

Course coordinator : Dr Shereen Aly Machaly

Head of the department: Prof Dr Basma El-Kady

Date: /8/2016

COURSE SPECIFICATION

OF

BASICS OF CLINICAL IMMUNOLOGY

(REH 530)

COURSE SPECIFICATION
OF BASICS OF CLINICAL IMMUNOLOGY
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology, Physical medicine and Rehabilitation /REH 500
(2) Department offering the programme:	Rheumatology, Physical medicine and Rehabilitation Department
(3) Department responsible for teaching the course:	Clinical pathology and Immunology Department
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	-8-2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Basics of clinical immunology
(8) Course code:	REH 530
(9) Credit hours:	1 hour
(10) Total teaching hours:	15 hrs/15 weeks

(B) Professional information

(1) Course aims:

The broad aims of the course are as follows:

1. To provide fellows with the basic knowledge of general immunology
2. To give fellows the ability to apply specialized knowledge of immunology in understanding the underlying mechanisms and pathogenesis of autoimmune rheumatic and connective tissue disorders and to integrate this knowledge in professional diagnosis and management of rheumatic diseases.

(2) Intended learning Outcomes (ILOs) :

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Identify theories and fundamentals related to immune system of human and its immune response.

A2- Recognize basic mechanisms of innate immunity, major histocompitability complex, molecular genetics and understand production and effects of lymphocytes, cytokines, inflammatory mediators and autoantibodies in relation to pathogenesis of rheumatic diseases and related disorders.

B- Intellectual skills

B1- Analyze and evaluate the given information of the basic immunology and analogies to interpret the laboratory investigations for proper diagnosis of autoimmune rheumatic diseases and solving related rheumatological and musculoskeletal problems.

B2- Integrate basic science of immunology with management and clinical care of patients with autoimmune rheumatic disorders.

(3) Course content :

Subjects	Lectures	Total Teaching Hours
▪ Innate immunity	1 hr/ one week	1 hr
▪ Lymphocytes & lymphoid tissues	1 hr/ two weeks	2 hr
▪ Immune response	1 hr/ one week	1 hr
▪ Antigen presentation & ▪ Major histocomptability complex	1 hr/ two weeks	2 hr
▪ Immunoglobulins & Immunoglobulin genes	1 hr/ two weeks	2 hr
▪ Cytokines	1 hr/ two weeks	2 hr
▪ Chemokines	1 hr/ one week	1 hr
▪ Complement & Kinin	1 hr/ one week	1 hr
▪ Inflammation	1 hr/ two weeks	2 hr
▪ Apoptosis	1 hr/ one week	1 hr

(4) Teaching methods :

4.1: ……..Lectures …….

4.2: …….

(5) Assessment methods:

5.1: Final written exam for assessment of knowledge and intellectual ILOs

5.2: Final oral exam for assessment of knowledge and intellectual ILOs

5.3: Log book ……..

Assessment schedule:

Assessment 1: at the end of 1st semester

Assessment 2. at the end of 1st semester

Assessment 3 : at the end of 1st semester

Percentage of each assessment

Assessment 1: MCQ.... 12 Marks

Written exam: 48 marks

Oral exam: 40 marks

Other types of assessment :……%.....

Other assessment without marks……..

(6) References of the course:

6.1: Hand books:…… Basic immunology handbook

6.2: Text books .....Cellular and Molecular Immunology Text book

6.3: Journals:……Journal of clinical Immunology…….

…….Journal of Immunology.....

6.4: Websites:……http://immunology.org/……..

..... http://www.aai.org/ …….

6.5: Others:……

(7) Facilities resources mandatory for course completion:

-Laptop for lectures presentation

-Data show projector

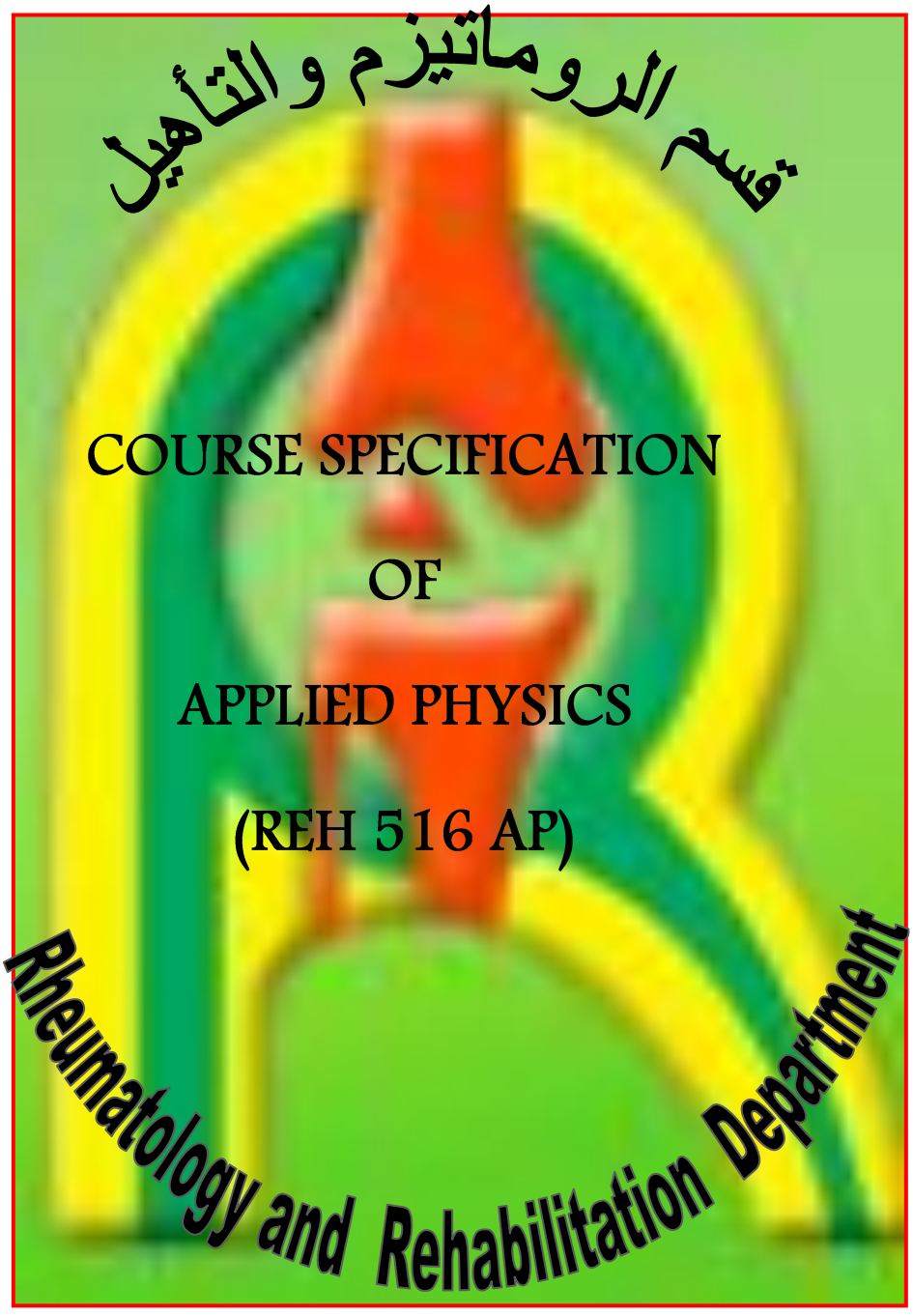
- Laser pointer and white board

-Comfortable well prepared classroom

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof Dr Basma El Kady

Date : /8/2016


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
OF
APPLIED PHYSICS
(REH 516 AP)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION
OF APPLIED PHYSICS
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Program offering the course:	Postgraduate master degree of Physical medicine, Rehabilitation and Rheumatology
(2) Department offering the programme:	Physical medicine, Rehabilitation and Rheumatology Department
(3) Department responsible for teaching the course:	Physical medicine, Rehabilitation and Rheumatology Department
(4) Part of the programme:	First Part
(5) Date of approval by the Department`s council	-8-2016
(6) Date of last approval of programme specification by Faculty council	9-8-2016
(7) Course title:	Applied Physics
(8) Course code:	REH 516 AP
(9) Credit hour:	1 hour
(10) Total teaching hours:	15 hours/ 15 weeks

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1. To provide the candidates with basic scientific knowledge and theories of physical medicine and to recognize its benefits and hazards.
2. To prepare the candidate to utilize this knowledge in management of different lesions of muscles, joints and other musculoskeletal disorders.

A- Knowledge and Understanding

A1-Identify different categories of physiotherapy modalities.

A2- Recognize the physiologic effects of physiotherapy modalities on soft tissues

A3- Describe the various mechanisms of physiotherapy modalities related to the management of rheumatic, orthopedic, neurological and other disorders.

A4- Identify benefits and hazards of uses of physical agents in the field of rheumatology and rehabilitation medicine

B- Intellectual skills

B1- Integrate knowledge of physical science in the context of managing different musculoskeletal disorders according to the type of lesion.

B2- Apply physical medicine and design rehabilitation program in patients with rheumatologic, neurological, orthopedics and other medical disorders.

(3) Course Content :

Subjects	Lectures (1 hr/week For 15 weeks)	Total Teaching Hours (15 hours/ 15 weeks)
Electromagnetic spectrum**:** 1-=Ultra-violet rays	1 hr/ wk for one wk	1 hr
2-Infra red rays	1 hr/ wk for one wk	1 hr
3 -LASER waves	1 hr/ wk for one wk	1 hr
4-High frequency currents (SW, MW)	1 hr/ wk for 2 wks	2 hr
Resistence	1 hr/ wk for one wk	1 hr
Types of electric current: • Direct current • Sinusoidal current • Faradic current • TENS • Didynamic current	1hr/ wk for 4 wks	4 hr

• Interferential current		
Ultrasonic waves	I hr/ wk for one wk	1 hr
Latent heat	1 hr/ wk for one wk	1 hr
Viscosity, surface tension	1 hr/ wk for one wks	1 hr
Hydrotherapy	1 hr/ wk for 2 wks	2 hr

(4) Teaching methods:

4.1. Lectures……

(5) Assessment methods :

5.1: Final written exam for assessment of knowledge and intellectual ILOs

5.2: Final oral exam for assessment of knowledge and intellectual ILOs

5.3 MCQ exam for assessment of knowledge and intellectual ILOs

5.4: Log book for assessment

Assessment schedule:

Assessment 1: at the end of 1st semester

Assessment 2. at the end of 1st semester

Assessment 3 : at the end of 1st semester

Percentage of each Assessment to the total mark:

Written exam:. 144 marks

MCQ exam :36 marks

Structured Oral exam: 120 marks (40 %)

(6) Reference of the course :

6.1: Text books: Applied Physics

6.2: Journals: ….Journal of Applied Physics,……..….

……Journal of physical medicine and rehabilitation, …

…….Archives of physical medicine and rehabilitation

6.3: Websites**: Physical medicine encyclopedia (http,//en.wikipedia.org/wiki/Physical_medicine_and_rehabilitation).**

(7) Facilities and resources mandatory for course completion:

- Laptop and data show projector
- Laser pointer and white board
- Comfortable and well prepared classroom
- Physiotherapy tools and apparatuses

Course coordinator: Dr. Shereen Aly Machaly

Head of the department: Prof. Dr Basma El Kady

Date: /8/2016


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
OF
REGIONAL MUSCULOSKELETAL
DISORDERS
(REH 516 MD)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION
OF REGIONAL MUSCULOSKELETAL DISORDERS
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	M.Sc in Rheumatology, Physical Medicine and Rehabilitation /REH 500
(2) Department offering the programme:	Department of Physical Medicine , Rehabilitation & Rheumatology
(3) Department responsible for teaching the course:	Department of Physical Medicine , Rehabilitation & Rheumatology
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	/8 /2016
(6) Date of last approval of programme specification by Faculty council	9 /8 /2016
(7) Course title:	Regional Musculoskeletal Disorders
(8) Course code:	REH 516 MD
(9) Credit hours:	1 hour
(10) Total teaching hours:	15 hrs /15 weeks

(B) Professional information

(1) Course Aims,

The broad aims of the course are as follows:

1- To give the Msc candidates a sound understanding of concepts and research in regional musculoskeletal disorders.

2- To provide them with appropriate theoretical & clinical knowledge base and comprehensive training in the scientific basis of different aspects of regional rheumatic disorders.

3- To provide ability to apply sound judgment to diagnose and manage various regional musculoskeletal disorders

(2) Intended Learning Outcomes

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1 -Outline epidemiology, frequency and risk factors of the spectrum of diseases affecting the musculoskeletal system, and their impact on global health.

A2- Recognize pathological cascades of patients with musculoskeletal complaint, and describe the basic pathology of systemic and regional musculoskeletal disorders and relevant common internal medicine diseases and identify their mutual influence.

A3- Explain the scientific basis of the methodology, and list indications of laboratory tests, physical tests and imaging procedures used in diagnosis and monitoring of different rheumatic, orthopedic, neurologic disorders and others in need for rehabilitation.

A4- List the pharmacological therapeutic and other treatment options for rheumatic diseases, including complementary and alternative therapies.

B- Intellectual skills

B1- Apply the surface landmarks of the underlying joints, bones, muscles and tendons in clinical examination of these parts, diagnosis of specific disorders of these structures and therapeutic injection.

B2- Integrate patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis of various musculoskeletal disorders.

B3- Select from different diagnostic alternatives and interpret various diagnostic procedures to reach a final diagnosis.

B4- Formulate appropriate management plans for individual patients presenting with musculoskeletal diseases, autoimmune rheumatological disorders and related internal medical disorders.

B5- Apply physical medicine and design rehabilitation program in patients with rheumatologic, neurological, orthopedics and other medical disorders.

B6- Apply appropriate assessment & measurement tools to evaluate functional status or outcomes of type of treatment used.

B7- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice.

(3) Course contents :

Subjects	Lectures (1 hr/week for 15 weeks)	Total Teaching Hours (15 hrs/ 15 weeks)
Joints & Tendons: ▪ Bursitis ▪ Tendonitis ▪ Tenosynovitis (trigger finger) ▪ Ligament strain & sprain	1 hr/2wks	2 hrs
Wrist & Hand: ▪ Carpel tunnel Syndrome ▪ Trigger finger ▪ Reynard's syndrome ▪ Ganglion ▪ Dupuytren's contracture	1 hr/2wks	2 hrs
Elbow: **Epicondylitis :** ▪ Tennis Elbow ▪ Golfers elbow	1 hr/2wks	2 hrs
Neck & Shoulder: ▪ Rotator cuff tendonitis (Supra-spinatus tendonitis) ▪ Capsulitis (Frozen shoulder) ▪ Thoracic outlet syndrome	1 hr/2wks	2 hrs
Back: ▪ Degenerative disk disease	1hr/2wks	2 hrs

▪ Herniated disc ▪ Chronic back pain		
Legs & Feet: ▪ Hallux valgus ▪ Hammer toe ▪ Morton's neuroma ▪ Tarsal tunnel syndrome ▪ Plantar fasciitis	1 hr/2wks	2 hrs
▪ Osteoarthritis ▪ Complex regional pain syndromes	1 hrs/2wks	2 hrs
▪ Fibromyalgia ▪ Myofascial pain syndromes	1 hr/1wk	1 hr

(4) **Teaching methods.**

4.1: **...** Lecture with discussion using power point presentations

4.2:... Class discussion

(5) Assessment methods:

5.1: Written examination to assess knowledge and intellectual ILOS

5.2: MCQ exam to assess knowledge and intellectual ILOS

5.3: Oral examination to assess to asses knowledge and intellectual ILOS

5.4: Log book

Assessment schedule:

Assessment 1: at the end of 1st semester

Assessment 2. at the end of 1st semester

Assessment 3 : at the end of 1st semester

Percentage of each Assessment to the total mark:

Written exam..... 72 marks

MCQ …….. 18 marks

Oral exam…….. 60 marks

Other assessment without marks…….Log book

(6) References of the course.

6.1. Hand books....Primer on the Rheumatic Diseases Published by the arthritis foundation USA

6.2: Text books: Kelley's Text Book of Rheumatology Published by ELSEVIER SAUNDERS USA

6.3. Journals. journal of Rheumatology

Arthritis and Rheumatism

6.4: Websites **WWW. EULAR.COM**

WWW. ARTHRITIS. ORG

WWW. JOINT & BONE. COM

WWW.RHEUMATOLOGY.ORG

6.5: Others…… Attending meetings & Conferences…..

(7) Facilities and resources mandatory for course completion:

1- **ADEQUATE INFRASTRUCTURE**: including teaching places (Teaching class, teaching halls, imaging facilities), comfortable desks, good source of aeration, bathrooms, and good illumination.

2- **TEACHING TOOLS**: including screens, computers including data shows, projectors, flip charts, white boards, video player, scanner, copier, and laser pointer.

3- Out patient clinic for collection of clinical cases

4- Pharmacy for pharmacological treatment of patients

5- Rehabilitation measures & physiotherapy equipments for rehabilitating patients

Course coordinator: Dr Shereen Machaly

Head of the department: Prof. Dr. Basma El Kady

Date: /8/2016


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
OF
INTERNAL MEDICINE
(REH 510)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION
OF INTERNAL MEDICINE
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	M.Sc in Rheumatology, Physical Medicine and Rehabilitation /REH 500
(2) Department offering the programme:	Department of Physical Medicine , Rehabilitation & Rheumatology
(3) Department responsible for teaching the course:	Department of internal Medicine
(4) Part of the programme:	First part
(5) Date of approval by the Department`s council	/8 /2016
(6) Date of last approval of programme specification by Faculty council	9 /8 /2016
(7) Course title:	Internal Medicine
(8) Course code:	REH 510

(9) Credit hour:	1 hour lectures 0.5 hours clinical
(10) Total teaching hours:	15 hrs lectures 15 hours clinical/ 15 weeks

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1-Provide the postgraduate M.Sc student with internal medicine knowledge and skills essential for the practice of Rheumatology and necessary to gain further training and practice in the field of rheumatology.

2-Provide skills necessary for proper diagnosis and management of patients in field of internal medicine related to rheumatology including diagnostic, problem solving and decision making.

3- Teach ethical principles related to the practice in this specialty.

4- Maintenance of abilities necessary for continuous medical education.

(2) Intended learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Identify the spectrum of clinical symptoms and signs of different body systems affection namely CNS, CVS, respiratory, GIT, and renal systems involved in musculoskeletal disorders and common systemic

medical conditions with musculoskeletal affection and identify their mutual influence.

B- Intellectual skills

B1- Integrate patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis of various musculoskeletal disorders.

B2- Solve patients problems according to the available data collected from patient's evaluation and suggest investigations related to the patient's condition.

B3- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice.

C- Professional/practical skills

C1- Take a good medical history.

C2- Conduct a proper general examination

C3- Develop the clinical skills of eliciting abnormal physical signs in the examination of various systems.

C4- Write and evaluate medical reports, clinical sheets including all collected data relevant to the patient's condition and treatment regimen sheets.

C5- Apply sound ethical principles in practice (e.g., informed consent, confidentiality, veracity, provision or withholding of care).

D- Communication & Transferable skills

D1- Retrieve, manage, and manipulate information by all means.

D 2- Communicate ideas and arguments effectively.

D3- Demonstrate caring/respectful behaviors with patients and staff.

D4- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D5- Communicate effectively in its different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D6- Demonstrate compassion, integrity, and respect for all patient's rights and treat all patients equally regardless to their believes, culture and behavior.

D7- Recognize one's own limitation of knowledge and skills and refer patients to appropriate specialized health facility at appropriate stage.

D8- Maintain comprehensive, timely, and legible medical records, if applicable.

(3) Course content

Subjects	Lectures (1 hr/week for 15 weeks)	Total Teaching Hours (15 hrs/ 15 weeks)
Cardiovascular system ▪ Heart failure ▪ Rheumatic fever ▪ Coronary heart disease ▪ Hypertension ▪ Infective endocarditis ▪ Pulmonary embolism ▪ Pulmonary hypertension	1hr/ 2wks	2 hrs lectures
Blood: ▪ Anemia ▪ Bleeding diathesis	1 hr/ 1w	1 hr

GIT & liver, ▪ GIT hemorrhage ▪ Dyspepsia ▪ Chronic diarrhea ▪ Hepatitis, acute & chronic ▪ Jaundice ▪ Inflammatory bowel disease	1 hr/ 2w	2 hrs lectures
Kidney ▪ Renal failure ▪ Glomerulonephritis ▪ Nephrotic syndrome	1hr/ 2w	2hrs
Endocrine System: ▪ Pituitary gland ▪ Thyroid gland ▪ Suprarenal gland ▪ Parathyroid gland	1hr/2w	2hrs
Infection in the immuno-Compromised host	1 hr/ w	1 hr
Chest Diseases : ▪ Asthma ▪ Pneumonia ▪ COPD ▪ Pleural effusion	1 hr/ 2w	2hrs
Pyrexia of unknown Etiology	1 hr/ week	1 hr

Clinical teaching: 15 hours

Clinical topics	Teaching hours
Hypertension (evaluate, examine and investigate)	2 hrs
Hepatitis (evaluate, examine and investigate)	2 hrs
Thyrotoxicosis (evaluate, examine and investigate)	2 hrs
Diabetes mellitus (evaluate, examine and investigate)	2 hrs
ECG, ECHO (evaluate and interpret)	3 hrs
COPD (evaluate, examine and investigate)	2 hrs
Pleural effusion (evaluate, examine and investigate)	1 hr
Anaemia (evaluate, examine and investigate)	1 hr

(4) Teaching methods:

4.1: Illustrated lectures and case studies

4.2: Clinical rounds on patients.

4.3: Interactive presentations (lectures with discussion)

(5) Assessment methods:

5.1: Written examination to assess knowledge and intellectual ILOS

5.2 MCQ exam to assess knowledge and intellectual ILOS

5.3: Oral examination to asses knowledge and intellectual and transferable ILOS

5.4 OSCE clinical exam to asses knowledge and intellectual , practical and transferable ILOS

5.5. Log book

Assessment schedule:

Assessment 1: at the end of 1st semester

Assessment 2. at the end of 1st semester

Assessment 3 : at the end of 1st semester

Assessment 4: at the end of 1st semester

Percentage of each Assessment to the total mark:

Written exam: 72marks

MCQ : 18 marks MCQ.

OSCE Clinical exam 30 Marks

Oral exam 30 Marks

(6) References of the course:

6.1- Essential Books (Text Books)

Kumar and Clarke Textbook of Medicine; Parveen Kumar and Richard Clark; Blackwell Science;

Hutchison's Clinical Methods; Robert Hutchison; Harry Rainy; last edition

6.2- Recommended Books

Cecil Textbook of Medicine; McGraw Hill; last edition

Harrison's Textbook of Medicine, McGraw Hill, last edition

6.3- Periodicals. - American Journal of Medicine

Annals of Internal Medicine

Archives of Internal Medicine

6.4 Web Sites: - WWW.American Heart Association. Com

WWW. American gastroenterology Association.com

WWW. Circulation.com

WWW. American Rheumatology Association.com

(7) Facilities and resources mandatory for course completion:

I - ADEQUATE INFRASTRUCTURE including:

Teaching places, (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.

2. **TEACHING TOOLS including**

Screens, computers including: CD data shows and overhead projectors, flip charts, white boards, video player, scanner, copier and laser pointer.

Course coordinator: Dr Shereen Machaly

Head of the department: Prof Dr Basma El Kady

Date: /8/2016

COURSE SPECIFICATION

OF

RHEUMATOLOGY

AND

IMMUNOLOGY

(REH 516 RH)

COURSE SPECIFICATION

OF RHEUMATOLOGY AND IMMUNOLOGY

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(2) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department
(3) Department responsible for teaching the course:	Rheumatology & Rehabilitation and Physical Medicine department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Rheumatology & Immunology
(8) Course code:	**REH 516 RH**
(9) Credit hours:	8 credit hours in 3 semesters 7 credits clinical
(10) Total teaching hours:	120 lectures–210 clinical /45 weeks

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1- To provide fellows with the knowledge, intellectual and professional skills required to perform as well-trained, productive independent clinical Rheumatologists and independent consultants and specialized care providers for patients with autoimmune, inflammatory and degenerative musculoskeletal disorders.

2- To provide a rigorous, exciting, and productive training experience for fellows interested in developing careers as independent specialized physician-scientists in rheumatology and immunology. This requires at least a three year commitment to the study of molecular and cellular mechanisms of arthritis, autoimmune, and musculoskeletal diseases

3- To provide an outpatient clinical experience with exposure to a broad spectrum of rheumatic diseases.

4- To allow the fellows to develop an educational role in the course by communicating their understanding to their peer groups, by means of presentations, lectures. The emphasis will be on self-learning.

5- To provide candidates with the ability to analyze literature, critically evaluate research, design and conduct of a research project.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Recognize the basic structure of the different joints of the human body, their biomechanics and how each adapts to its function with the muscles acting upon each joint.

A2- Outline epidemiology, frequency and risk factors of the spectrum of diseases affecting the musculoskeletal system, and their impact on global health.

A3- Identify clinical and molecular genetics, aetiology, pathogenesis, and basic mechanisms of rheumatic diseases and related disorders.

A4- describe the basic pathology of systemic and regional musculoskeletal disorders and relevant common internal medicine diseases and identify their mutual influence.

A5- Identify the spectrum of clinical symptoms and signs of musculoskeletal disorders and common medical conditions with multisystem affection.

A6- Explain the scientific basis of the methodology, and list indications of laboratory tests, physical tests and imaging procedures used in diagnosis and monitoring of different rheumatic, orthopedic, neurologic disorders and others in need for rehabilitation.

A7- Recognize pharmacology and pharmacokinetics - including drug metabolism, adverse effects, indications and interactions- of commonly used drugs in treatment of rheumatic diseases.

A8- List the pharmacological therapeutic and other treatment options for rheumatic diseases, including complementary and alternative therapies.

A9- Identify proper patient care and patient's rights to obtain the optimum health care and effective treatment of rheumatic diseases.

A10 -Identify basics of ethics, medicolegal aspects, malpractice and common medical errors in rheumatology.

A11- Identify principles, methodology, tools and ethics of scientific research in rheumatology and rehabilitation medicine fields.

B- Intellectual skills

B1 - Integrate the anatomy of the muscles, nerves and vertebral column of the human body with clinical examination of musculoskeletal system and utilize major clinical applications of anatomical facts.

B2- Apply the surface landmarks of the underlying joints , bones, muscles and tendons in clinical examination of these parts, diagnosis of specific disorders of these structures and therapeutic injection.

B3- Analyze and evaluate the information of the body physiology and immunology and analogies to solve rheumatological and musculoskeletal problems.

B4- Integrate basic science of pathology, genetics, immunology, and biochemistry of connective tissue, bone, joint, and muscle with clinical care of patients with rheumatic disorders.

B5- Integrate patient's symptomatology, historic data, abnormal physical signs and investigations into a comprehensive differential diagnosis of various musculoskeletal disorders.

B6- Differentiate between types of arthritis and other musculoskeletal disorders and predict prognoses

B7- Select from different diagnostic alternatives and interpret various diagnostic procedures to reach a final diagnosis.

B8- Combine the use of nonsteroidal anti-inflammatory drugs, disease modifying drugs, biological response modifiers, glucocorticoids, cytotoxic drugs, antihyperuricemic drugs, and antibiotic therapy (for septic arthritis) into the medical care of patients and monitor their effects.

B9- Solve patients problems according to the available data collected from patient's evaluation and suggest investigations related to the patient's condition.

B10- Formulate appropriate management plans for individual patients presenting with musculoskeletal diseases, autoimmune rheumatological disorders and related internal medical disorders.

B11- Compare use of various treatment methods in the context of patient satisfaction, efficacy, and cast-benefit.

B12- Make decisions needed in different situations of clinical practice based on evidence-based medicine in rheumatology, using appropriate problem solving skills.

B13- Apply appropriate assessment & measurement tools to evaluate functional status or outcomes of type of treatment used.

B14- Assess risks in the clinical emergencies in the field of rheumatology.

B15- Resolve specialized problems with non-availability of some data.

B16- Consider effects of personal, social and cultural factors in the disease process and patient management.

B17- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice

B18- Critically evaluate research; design and conduct of a research project

B19- Analyze literature, generate hypothesis, design and criticize protocol, organize and present data.

B20- Investigate and evaluate care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and life-long learning.

C– Professional/practical skills

C1- Take a good medical history, conduct a proper general examination, demonstrate normal and abnormal physical signs and develop the clinical sills of eliciting abnormal physical signs in the examination of various systems.

C2- Examine patients, to include a specific examination of structure and function of all joints, both axial and peripheral, as well as periarticular structure and muscle units, to evaluate the musculoskeletal system and nervous system in an accurate manner

C3- Demonstrate appropriate positioning in relation to the patient in the exam room to facilitate good rapport with patients.

C4- Perform diagnostic aspiration and analysis of synovial fluid.

C5- Investigate immune system by proper laboratory and immunological tests for accurate diagnosis and management of autoimmune rheumatic diseases and use professionally the immune therapy for some rheumatological diseases.

C6- Interpret bone and joint imaging techniques applying the facts of anatomical structures and interpret bone density measurement.

C7- Perform therapeutic injection of synovial joints, bursae, tenosynovial structures and enthuses.

C8- Write and evaluate medical reports, clinical sheets including all collected data relevant to the patient's condition and physiotherapy treatment regimen sheets.

D– Communication & Transferable skills

D1- Be prepared for the lifelong learning needs of the profession in rheumatology & immunology. Set learning and improvement goals and continue to self-learning and self-evaluation and demonstrate personal learning needs

D2- Use information and communication technology effectively and use different resources to gain knowledge and information related to rheumatology.

D3- Retrieve, manage, and manipulate information by all means.

D4- Analyze and use numerical data including the use of simple statistical methods.

D5- Communicate ideas and arguments effectively.

D6- Communicate effectively in its different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D7- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D8- Present clearly, and effectively a scientific topic in front of audience using computer and power point skills.

D9- Demonstrate an educational role in the course by communicating their understanding to their peer groups, by means of presentations and lectures.

D10- Organize workload in order to meet deadlines.

D11- Demonstrate ability to articulate the risks and benefits of different treatment options to patients, present information to patients, family members, caregivers & other health care providers in an effective manner and establish trust and maintain positive rapport with patients.

D12- Demonstrate caring/respectful behaviors with patients and staff.

D13- Demonstrate responsiveness to patient needs that supersedes self-interest and demonstrate respect for patient privacy and autonomy

D14- Demonstrate compassion, integrity, and respect' for all patient's rights and treat all patients equally regardless to their believes, culture and behavior.

D15- Accept personal responsibility for own actions & decisions.

D16- Discover strengths, deficiencies, and limits in one's knowledge and expertise and recognize one's own limitation of knowledge and skills and refer patients to appropriate specialized health facility at appropriate stage.

D17- Maintain comprehensive, timely, and legible medical records, if applicable.

D18- Locate, appraise, and assimilate evidence from scientific studies related to their patients' health problems.

D19- Demonstrate sensitivity and responsiveness to a diverse patient population, including but not limited to diversity in gender, age, culture, race, religion, disabilities, and sexual orientation.

(3) course content 120 hours lectures

	Subjects	Teaching hours
(module1) 3 credit Hours (45 teaching hours)	Structure, function of joints, CT and muscles.	2 hrs
	Immune & inflammatory response.	2 hrs
	Neuro-endocrinal aspects of the immune system & inflammation.	2 hrs
	The role of free radicals, endothelium, adhesion molecules in the etiopathogenesis of rheumatic diseases.	2 hrs
	cytokines and apoptosis in rheumatic disease	4 hrs
	Rheumatoid arthritis	4 hrs
	Sjogren's syndrome and	2 hrs
	Palindromic rheumatism.	2 hrs
	SLE	4 hrs
	Systemic sclerosis	3 hrs
	Dermatopolymyositis.	3 hrs
	Vasculitis	3 hrs
	Behcet disease.	2 hrs
	Spondyloarthropathies.	4 hrs

	Inflammatory diseases of muscles and other myopathies.	2 hrs
	Rheumatic diseases of childhood.	4 hrs
(module2) 3 credit Hours (45 teaching hours)	Crystal deposition arthropathies.	2 hrs
	Osteoarthritis	3 hrs
	Infective arthritis	3 hrs
	Osteoporosis	2 hrs
	Paget's disease and osteomalacia	2 hrs
	Osteonecrosis	2 hrs
	Amyloidosis	2 hrs
	Sarcoidosis	2 hrs
	Haematologic associated arthropathies	2 hrs
	endocrine associated arthropathies	2 hrs
	Malignant disorders associated arthropathy	2 hrs
	History taking and clinical examination	2 hrs
	DD of different types of arthritis	2 hrs
	Diagnostic tests procedures and laboratory markers in rheumatic diseases	3 hrs
	Aspiration analysis and injection of joints & soft tissues.	3 hrs
	Imaging of musculoskeletal system.	3 hrs
	Fibromyalgia and psychogenic rheumatism	2 hrs
	Renal bone diseases and Reflex Sympathetic dystrophy	2 hrs
	Regional pain, entrapment neuropathy and related disorders	2 hrs
	Pregnancy and lactation in rheumatic diseases	2 hrs

(module3) 2 credit Hours (30 teaching hours)	NSAIDs	3 hrs
	Glucocorticoids	3 hrs
	Disease modifying anti-rheumatic drugs.	3 hrs
	Immunoregulatory agents.	3 hrs
	Anti-hyperuricemic drugs.	3 hrs
	Biologic Therapy	3 hrs
	Bone-strengthening agents.	3 hrs
	Rehabilitation of patients with rheumatic diseases	3 hrs
	Intra-articular therapy.	3 hrs
	Indications of surgery in rheumatic diseases.	3 hrs

Clinical topics: 210 teaching hours

Topic	**Teaching hours**
History taking, clinical examination and patient evaluation	6 hrs
Examine and evaluate Rheumatoid arthritis patients	6 hrs
Examine and evaluate patients of Sjogren's syndrome	6 hrs
Examine and evaluate patients of Palindromic rheumatism.	6 hrs
Examine and evaluate patients of SLE	6 hrs
Examine and evaluate patients of Systemic sclerosis	6 hrs
Examine and evaluate patients of Dermatopolymyositis.	6 hrs
Examine and evaluate patients of Vasculitis	6 hrs
Examine and evaluate patients of Behcet disease.	6 hrs
Examine and evaluate patients of Spondyloarthropathies.	6 hrs
Examine and evaluate patients of Inflammatory diseases of muscles and other myopathies.	6 hrs
Examine and evaluate patients of juvenile idiopathic and	6 hrs

rheumatoid arthritis	
Examine and evaluate patients of Crystal deposition arthropathies.	6 hrs
Examine and evaluate patients of Osteoarthritis	6 hrs
Examine and evaluate patients of Infective arthritis	6 hrs
Examine and evaluate patients of Osteoporosis	6 hrs
Examine and evaluate patients of Paget's disease	6 hrs
Examine and evaluate patients of osteomalacia	6 hrs
Examine and evaluate patients of Osteonecrosis	6 hrs
Examine and evaluate patients of Amyloidosis	6 hrs
Examine and evaluate patients of Sarcoidosis	6 hrs
Examine and evaluate patients of Haematologic associated arthropathies	6 hrs
Examine and evaluate patients of endocrine associated arthropathies	6 hrs
Examine and evaluate patients of Malignant disorders associated arthropathy	6 hrs
Differentiate between different types of arthritis	6 hrs
Select, evaluate and interpret Diagnostic tests procedures and laboratory markers in rheumatic diseases	6 hrs
Aspiration analysis and injection of joints & soft tissues.	12 hrs
Select and interpret Imaging of musculoskeletal system.	12 hrs
Examine and evaluate patients of Fibromyalgia	6 hrs
Examine and evaluate patients of psychogenic rheumatism	6 hrs
Examine and evaluate patients of Renal bone diseases and Reflex Sympathetic dystrophy	6 hrs
Examine and evaluate patients of Regional pain	6 hrs
Examine and evaluate patients of entrapment neuropathy	6 hrs

and related disorders	

(4) Teaching methods :

4.1…….....Lectures ……..

4.2:……..Tutorials ……..

4.3:….problem-based learning scenarios (case presentations)……

4.4:…….Clinical training ……

(5) Assessment methods:

5.1: Written exam…….for assessment of knowledge and intellectual ILOs

5.2: MCQ continuous exam for assessment of Knowledge and intellectual ILOs

5.3: Oral exam. for assessment of knowledge intellectual and transferable ILOS

5.4: OSCE Clinical exam. for assessment of knowledge intellectual, practical and transferable ILOS

5.5: Log book....

Assessment schedule:

Assessment 1: ..... at the end of 36 months of job registration or 30 months of registration to the MS degree

Assessment 2: ..... at the end of at the end of each semester

Assessment 3: ..... at the end of 36 months of job registration or 30 months of registration to the MS degree

Assessment4. at the end of 36 months of job registration or 30 months of registration to the MS degree

Written exam: 160 marks

MCQ..... 40 marks

Clinical exam: 100marks

Oral exam ..... 100marks .....

Other types of assessment.....

Other assessment without marks: , log book

(6) References of the course:

6.1: Hand books: ..... A synopsis of Rheumatic Diseases by Douglas Golding .....

6.2: Text books: ..... Kelly's Textbook of Rheumatology 8th edition (2009)

..... ……..Primer on The Rheumatic Diseases by Klipple…….

6.3: Journals: .....- Arthritis and Rheumatism .....

.....- Annals of Rheumatic Diseases……..

6.4: Websites: .....http://www.rheumatology.org/.....

.....http://www.eular.org/ ……

6.5: Others.... attending meetings, workshops and conferences.....

(7) Facilities and resources mandatory for course completion :

1- Teaching tools:

- Computers and laptop for lectures presentation
- Data show projector and screen
- Laser pointer and white board
- Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

2- Outpatient clinic for collection of clinical cases.

3- Pharmacy for pharmacological treatment of patient.

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof Dr. Basma El kady

Date: /8/2016

PHYSICAL MEDICINE

AND

REHABILITATION

(REH 516 PMR)

COURSE SPECIFICATION

OF PHYSICAL MEDICINE AND REHABILITATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and

	Physical Medicine/ REH 500
(2) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department
(3) Department responsible for teaching the course:	Rheumatology & Rehabilitation and Physical Medicine department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Physical Medicine & Rehabilitation
(8) Course code:	**REH 516 PMR**
(9) Credit hours	7 credit hours in 3 semesters 6.5 credits clinical
(10) Total teaching hours:	105 lectures 195 clinical /45 weeks

(B) Professional information

(1) Course Aims.

The broad aims of the course are as follows:

1- To supply fellows with the basic and advanced knowledge of physical and rehabilitation medicine
2- To provide a useful, and productive training experience for our candidates through 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 provide fellows with the skills required to perform as well-trained independent specialist for patients needing medical rehabilitation or physical therapy.
4- Prepare the fellow to be an active member of a health care team and be responsible for longitudinal patient management with primary decision-making.

(2) Intended Learning Outcomes (ILOs):

On successful completion of the course, the candidate will be able to:

A-Knowledge and Understanding

A1- Explain the scientific basis of the methodology, and list indications of laboratory tests, physical tests and imaging procedures used in diagnosis and monitoring of different rheumatic, orthopedic, neurologic disorders and others in need for rehabilitation.

A2- Identify indications, advantages, and limitations for electrodiagnostic studies, electromyography and nerve conduction studies.

A3- Describe basic principles of rehabilitation medicine, impairments, disability and handicapping.

A4- Recognize principles of assessment, evaluation and management of patients in a Rehabilitation setting.

A5- Describe mechanical, manual and functional rehabilitation approaches.

A6- Identify different categories of physiotherapy modalities and understand their physiologic effects on soft tissues and describe their various mechanisms related to the management of rheumatic, orthopedic, neurological and other disorders.

A7- Identify benefits and hazards of uses of physical agents in the field of rheumatology and rehabilitation medicine

A8- Describe exercise guidelines, benefits and hazards and understand physiologic effect of exercise on soft tissues.

A9- Recognize the benefits of rehabilitation on the patient's quality of life, and its role on improving the patient's illness impact on global health.

A10- Identify basics of health and patient's safety and safety procedures during practice.

A11- Identify proper patient care and patient's rights to obtain the optimum health care and effective treatment of rheumatic diseases.

B- Intellectual skills

B1- Integrate basic science of pathology, genetics, immunology, and biochemistry of connective tissue, bone, joint, and muscle with clinical care of patients with in rehabilitation setting.

B2- Analyze and evaluate data of different patients attending physical medicine and rehabilitation units, compare data and conclude results adding to the available literature.

B3- Integrate knowledge of physical science in the context of managing different musculoskeletal disorders according to the type of lesion.

B4 -Formulate appropriate management plans for individual patients presenting with musculoskeletal diseases, and other medical disorders in need of rehabilitation.

B5- Apply physical medicine and design rehabilitation program in patients with rheumatologic, neurological, orthopedics and other medical disorders.

B6- Compose exercise/therapy prescription with specific diagnosis and recommended emphasis of treatment.

B7- Evaluate, manage, and construct rehabilitation of exercise-related (sports) illnesses.

B8- Describe, prescribe and evaluate orthosis and prostheses of different parts of the body.

B9- Make decisions needed in different situations of clinical practice based on evidence-based medicine in rehabilitation medicine, using appropriate problem solving skills.

B10- Apply appropriate assessment & measurement tools to evaluate functional status or outcomes of type of treatment used.

B11- Assess risks in the clinical emergencies in the field rehabilitation

B12- Consider effects of personal, social and cultural factors in the disease process and patient management.

B13- Apply ethical issues and resolve ethical dilemmas in relation to clinical practice

B14- Incorporate considerations of cost awareness and risk-benefit analysis in patient and/or population-based care as appropriate

C– Professional/practical skills

C1- Take a good medical history, conduct a proper general examination, demonstrate normal and abnormal physical signs and develop the clinical

skills of eliciting abnormal physical signs in the examination of various systems.

C2- Examine patients, to include a specific examination of structure and function of all joints, both axial and peripheral, as well as periarticular structure and muscle units, to evaluate the musculoskeletal system and nervous system in an accurate manner

C3- Demonstrate appropriate positioning in relation to the patient in the exam room to facilitate good rapport with patients.

C4- Apply and integrate knowledge of electrophysiology to perform and interpret electromyography and nerve conduction studies. Use of electrophysiological studies in biofeedback mechanisms in rehabilitation of certain patients.

C5- Interpret bone and joint imaging techniques applying the facts of anatomical structures and interpret bone density measurement.

C6-Write and evaluate medical reports, clinical sheets including all collected data relevant to the patient's condition and physiotherapy treatment regimen sheets.

C7-Deal efficiently with physiotherapy modalities and professional prescribing for appropriate conditions with proper positioning of the patient.

D– Communication & Transferable skills

D1- Be prepared for the lifelong learning needs of the profession in rehabilitation medicine and set learning and improvement goals..

D2- Use information and communication technology effectively to improve learning in the field of rehabilitation medicine and use different resources to gain knowledge and information related to rehabilitation fields.

D3- Retrieve, manage, and manipulate information by all means.

D4- Communicate ideas and arguments effectively in their different forms with other specialties and generate the ethos of a multidisciplinary approach in the clinical setting.

D5- Work effectively within a team and leadership teams in health care team or other various professional contexts.

D6- Present clearly, and effectively a scientific topic in front of audience using computer and power point skills.

D7- Demonstrate caring/respectful behaviors with patients and staff.

D8- Analyze and use numerical data including the use of simple statistical methods.

D9- Demonstrate ability to articulate the risks and benefits of different treatment options to patients, present information to patients, family members, caregivers & other health care providers in an effective manner and establish trust and maintain positive rapport with patients.

D10- Demonstrate an educational role in the course by communicating their understanding to their peer groups, by means of presentations and lectures.

D11- Discover strengths, deficiencies, and limits in one's knowledge and expertise.

D12- Recognize one's own limitation of knowledge and skills and refer patients to appropriate specialized health facility at appropriate stage.

D13- Accept personal responsibility for own actions & decisions.

D14- Demonstrate compassion, integrity, and respect for all patient's rights and treat all patients equally regardless to their believes, culture and behavior.

D15-Demonstrate responsiveness to patient needs that supersedes self-interest.

D16-Maintain comprehensive, timely, and legible medical records, if applicable.

:

(3) Course content : 105 Lectures

Module	Subjects	Teaching hours
(1) 2 credit hours (30 teaching hours)	Clinical evaluation.	2hrs
	Vocational evaluation and rehabilitation.	2hrs
	Psychological aspects of rehabilitation.	2hrs
	Functional outcome assessment, self care evaluation and management.	2hrs
	Electrodiagnosis	2hrs
	Electrophysiological studies of muscles in normal and pathological	8 hrs
	Nerve conduction studies.	10 hrs
	Neuromuscular junction studies.	2hrs
(2) 2 credit hours (30 teaching hours)	Heat therapy	2hrs
	Cold therapy	2hrs
	Hydrotherapy	2hrs
	Laser	2hrs
	Electromagnetic therapy	2hrs
	Electro-stimulation	2hrs
	Traction	2hrs
	Manipulations	2hrs
	Therapeutic exercise	2hrs
	Massage	2hrs

	Adaptive systems and devices for the disabled	2hrs
	Upper limb orthosis & prosthesis	2hrs
	Lower limb orthosis & prosthesis.	2hrs
	Spinal orthosis	2hrs
	Transfers and wheelchairs Walking aids.	2hrs
(3) 3 credit hours (45 teaching hours)	Rehabilitation of arthritis	2hrs
	Rehabilitation of pain	2hrs
	Rehabilitation of stroke	3hrs
	Rehabilitation of spinal cord injuries	3hrs
	Rehabilitation of multiple sclerosis	2hrs
	Neurogenic bladder and bowel.	2hrs
	Rehabilitation of Spasticity.	3hrs
	Rehabilitation of orthopedic and traumatic conditions.	2hrs
	Rehabilitation of sport injuries.	2hrs
	Rehabilitation of scoliosis.	2hrs
	Rehabilitation of amputee.	2hrs
	Rehabilitation after joint replacement therapy	2hrs
	Gait training.	3hrs
	Rehabilitation of osteoporosis.	2hrs
	Rehabilitation of cardiac patients	2hrs
	Pulmonary Rehabilitation	2hrs

	Rehabilitation of vascular diseases and diabetic foot.	3hrs
	Immobilization syndrome	2hrs
	Rehabilitation of burn.	2hrs
	Rehabilitation of gynecological & obstetric disorders.	2hrs

Clinical topics: 195 hours

Topic	**Teaching hours**
Practice clinical evaluation of patients in rehabilitation setting	3 hrs
Perform functional outcome and ADLs assessment	2 hrs
Electrophysiological studies of muscles in normal and pathological	24 hrs
Nerve conduction studies.	30 hrs
Neuromuscular junction studies.	6 hrs
Apply and evaluate treatment with Heat therapy	6 hrs
Apply and evaluate treatment with Cold therapy	2 hrs
Apply and evaluate treatment with Hydrotherapy	4hrs
Apply and evaluate treatment with Laser	4hrs
Apply and evaluate treatment with Electromagnetic therapy	2hrs
Apply and evaluate treatment with Electro-stimulation	6hrs
Apply and evaluate treatment with Traction	4hrs
Perform and evaluate treatment by Manipulations	4hrs
Apply and evaluate treatment with Therapeutic exercise	4hrs
Apply and evaluate treatment with Massage	4hrs
Apply, adapt to the patient and evaluate Upper limb orthosis & prosthesis	8 hrs

Apply, adapt to the patient and evaluate Lower limb orthosis & prosthesis.	8 hrs
Apply, adapt to the patient and evaluate Spinal orthosis	8 hrs
Construct, apply and evaluate Rehabilitation of arthritis	4hrs
Construct, apply and evaluate Rehabilitation of pain	4hrs
Construct, apply and evaluate Rehabilitation of stroke	4hrs
Construct, apply and evaluate Rehabilitation of spinal cord injuries	4hrs
Construct, apply and evaluate Rehabilitation of multiple sclerosis	2 hrs
Construct, apply and evaluate Neurogenic bladder and bowel.	4hrs
Construct, apply and evaluate Rehabilitation of Spasticity.	4hrs
Construct, apply and evaluate Rehabilitation of orthopedic and traumatic conditions.	4hrs
Construct, apply and evaluate Rehabilitation of sport injuries.	4hrs
Construct, apply and evaluate Rehabilitation of scoliosis.	4hrs
Construct, apply and evaluate Rehabilitation of amputee.	4hrs
Construct, apply and evaluate Rehabilitation after joint replacement therapy	4hrs
Practice and evaluate Gait training.	4hrs
Construct, apply and evaluate Rehabilitation of osteoporosis.	4hrs
Construct, apply and evaluate Rehabilitation of cardiac patients	4hrs
Construct, apply and evaluate Pulmonary Rehabilitation	4hrs
Construct, apply and evaluate Rehabilitation of vascular diseases and diabetic foot.	4hrs

(4) Teaching methods:

4.1 ……..Lectures ……

4.2 ……..Tutorials ……

4.3 ……problem-based learning scenarios (case presentations)……

4.4:……. Clinical training in outpatients' clinics ……..

(5) Assessment methods:

5.1: Written exam…….for assessment of knowledge and intellectual ILOs

5.2: MCQ continuous exam for assessment of Knowledge and intellectual ILOs

5.3: Oral exam. for assessment of knowledge intellectual and transferable ILOS

5.4: OSCE Clinical exam. for assessment of knowledge intellectual, practical and transferable ILOS

5.5 OSPE Practical exam for assessment of knowledge intellectual, practical and transferable ILOS

5.6: Log book....

Assessment schedule:

Assessment 1: ..... at the end of 36 months of job registration or 30 months of registration to the MS degree

Assessment 2: ..... at the end of at the end of each semester

Assessment 3: ..... at the end of 36 months of job registration or 30 months of registration to the MS degree

Assessment4. at the end of 36 months of job registration or 30 months of registration to the MS degree

Assessment 5: at the end of 36 months of job registration or 30 months of registration to the MS degree

Written exam: 160 marks

MCQ..... 40 marks

Clinical exam: 100marks

Oral exam 100marks

Practical exam: 100 Marks

Other types of assessment.....

Other assessment without marks: dissertation, log book

(6) References of the course.

6.1. Hand books: …Tidy's Physiotherapy by Stuart Porter …

...Rehabilitation Medicine; principles and practice by Delisa and Gans... ……

6.2: Text books:- Krusen's Textbook of Physical Medicine and Rehabilitation...

……Physical Medicine and Rehabilitation by Braddom……

6.3: Journals: ……-Archives of Physical Medicine and Rehabilitation

…… -Journal of Rehabilitation Medicine ……

6.4: Websites: …… http://www.isprm.org/ ……

6.5: Others: … attending meetings, conferences and workshops.

(7) Facilities and resources mandatory for course completion:

1- Teaching tools:- Computers and laptop for lectures presentation

-Data show projector and screen

Laser pointer and white board

Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

2- Outpatient clinic for collection of clinical cases

3- Pharmacy for pharmacological treatment of patients

4- Rehabilitation measures & physiotherapy equipments for rehabilitating patients.

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof Dr. Basma El Kady

Date: /8/2016

REHABILITATION

(REH 516 PR)

COURSE SPECIFICATION

OF PHYSICAL MEDICINE AND REHABILITATION

Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(2) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department

(3) Department responsible for teaching the course:	Rheumatology & Rehabilitation and Physical Medicine department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Pediatric Rehabilitation (elective course)
(8) Course code:	**REH 516 PR**
(9) Credit hours	3 credit hours over one semester
(10) Total teaching hours:	(45 lectures /15 weeks)

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1. Provide fellows with a broad knowledge base of medical issues related to rehabilitation of children and adolescents.
2. Provide the education necessary to promote and thoroughly develop fellow's skills related to data interpretation and patient management in a wide variety of pediatric rehabilitation patients.
3. Train the fellow in the field of pediatric rehabilitation to become academic leaders in the care of health problems in children and adolescents in need of medical rehabilitation.

(2) intended Learning Outcomes (lLOs):.

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Recognize principles of assessment, evaluation and management of pediatric patients in a rehabilitation setting.

A2- Describe mechanical, manual and functional rehabilitation approaches in children.

A3- Identify different categories of physiotherapy modalities, understand their physiologic and therapeutic effects and recognize hazards of their use on pediatric patients.

A4- Recognize the benefits of rehabilitation on the patient's quality of life and its role on improving the patient's illness impact on global health.

B- Intellectual skills

B1- Integrate basic knowledge of pathology, genetics, and immunology, with proper diagnosis of pediatric patients with rheumatic disorders, congenital and/or acquired disabilities in rehabilitation setting.

B2- Utilize knowledge of physical science in the context of managing different medical disorders and disabilities among children and adolescents.

B3- Apply physical medicine and design rehabilitation program in pediatric patients with rheumatologic, neurological, orthopedics and other medical disorders.

B4- Compose exercise/therapy prescription for emphasis of treatment in pediatric age group and describe, prescribe and evaluate orthosis and prostheses of different parts of the their bodies.

(3) Course content

Subjects	Lectures	Total Teaching Hours (15 wks)
Rehabilitation of congenital and acquired disabilities.	3 hrs/w	3 hrs
Pediatric traumatic brain injury rehab.	3hrs/w	3 hrs
Pediatric spinal cord injury rehab.	3hrs/w	3 hrs
Rehabilitation of stroke in children	3hrs/w	3 hrs
Abnormal gait in children	3hrs/w	3 hrs
Rehabilitation of neuromuscular disease	3hrs/w	3 hrs
Cerebral Palsy, spasticity management	3hrs/w	3 hrs
Rehabilitation of different forms of spinal bifida	3hrs/w	3 hrs
Therapeutic exercise, electrical stimulation,	3hrs/w	3 hrs
Bracing, equipment, with anticipatory guidance in children	3hrs/w	3 hrs
Rehabilitation of pediatric amputee, Pre-prosthetic and prosthetic devices	3hrs/w	3 hrs
Pediatric burn wound care	3hs/w	3 hrs
Rehabilitation of juvenile rheumatoid arthritis	3hs/w	3 hrs
Musculoskeletal pain syndromes involving the back, knee anterior leg, ankle/foot and upper extremity in pediatric patients.	3hs/w	3 hrs
Pulmonary rehabilitation	3hs/w	3 hrs

(4) Teaching methods:

4.1: Lectures

4.2: Scientific seminars

(5) Assessment methods:

5.1: Final written exam for assessment of knowledge and intellectual ILOs

5.2: MCQ continuous assessment exam for assessment of knowledge and intellectual ILOs

5.3: Logbook

Percentage of each Assessment to the total mark:

Written exam: 80 mark

MCQ 20 Marks

Log book: without marks

(6) References of the course:

6.1: Hand books: (a) Handbook of Pediatric Physical Therapy (Long, Handbook of Pediatric Physical Therapy), 2nd edition by Long, and Toscano

(b) Pediatrics (Rehabilitation Medicine Quick Reference) by Nelson (Author), and Buschbacher (Editor)

6.2: Text books: Pediatric Rehabilitation: Principles & Practices, fourth edition by Alexander and Matthews

6.3: journals: journal of Pediatric Rehabilitation Medicine ....Developmental Neurorehabilitation (formerly Pediatric Rehabilitation)..

6.4: Websites:. http://www.family friendly-fun com/therapy/ child-development.htm ww.cerebralpalsystemcells.com

6.5: Others…… Attending meetings, conferences and workshops

(7) Facilities and resources mandatory for course completion:

1- Teaching tools:

-Computers and laptop for lectures presentation -Data show projector and screen

- Laser pointer and white board
- Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

2- Outpatient clinic for collection of clinical cases

3- Pharmacy for pharmacological treatment of patients

4-Rehabilitation measures & physiotherapy equipments for rehabilitating patients

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof. Dr Basma El-Kady

Date: -8-2016

COURSE SPECIFICATION
OF PHYSICAL MEDICINE AND REHABILITATION
Faculty of Medicine– Mansoura University

(B) Administrative information

(11) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(12) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department
(13) Department responsible for teaching the course:	Rheumatology & Rehabilitation and Physical Medicine department
(14) Part of the programme:	Second part
(15) Date of approval by the Department`s council	/8/2016
(16) Date of last approval of programme specification by Faculty council	9/8/2016

(17) Course title:	Geriatric Rehabilitation (elective course)
(18) Course code:	**REH 516 GR**
(19) Credit hours	3 credit hours over one semester
(20) Total teaching hours:	(45 lectures /15 weeks)

(B) Professional information

(1) Course Aims: The broad aims of the course are to:

1) Provide the opportunity for the fellow to learn rehabilitation assessment and to know well the delivery of a comprehensive rehabilitation program in older adult patients.

2) Enable candidates to contribute to geriatric patient care service development regionally and nationally

3) Train the fellow in the field of Geriatric rehabilitation to become academic leaders in the care of health problems in elderly patients in need of medical rehabilitation and allow him/her to become a teacher and researcher in the field of geriatric rehabilitation.

(2) Intended Learning Outcomes (ILOs).

On successful completion of the course, the candidate will be able to:

A- Knowledge and Understanding

A1- Identify age-related changes in anatomy, physiology, and function and their impact on quality of elderly life

A2- Identify basic principles of pathology and mechanisms of impairments, disability and handicapping in older patients.

A3- Recognize principles of assessment, evaluation and management of geriatric patients in a Rehabilitation setting.

A4- Describe mechanical, manual and functional rehabilitation approaches and different categories of physiotherapy modalities related to the management of geriatric medical problems and disabilities.

A5-. Identify risks and hazards the vulnerable elderly age group is exposed to, and know the precaution should be taken during a rehabilitation program.

B- Intellectual skills:

B1-Apply physical medicine and design rehabilitation program in geriatric patients with rheumatologic, neurological, orthopedics and other medical disorders including.

B2- Describe, prescribe and evaluate orthosis and prostheses of different parts of the body and walking aids to the elder patients when needed.

(3) Course content:

Subjects	**Lectures**	**Total Teaching Hours (45 hrs/ 15 weeks)**
▪ Principles of practice in geriatric rehabilitation	2 hrs/week	2 hrs
▪ Theories of aging	3hrs/week	3hrs
▪ Age-related changes in anatomy, physiology, and function	3hrs/week	3hrs
▪ Nutritional Considerations with Aging	3hrs/week	3hrs
▪ Drugs and Function in the Elderly	3hrs/week	3hrs
▪ The role of the physical therapy in care of geriatrics	3hrs/week	3hrs

▪ Risk factors for falling ▪ Prevention of falls	3hrs/week	3hrs
▪ Rehabilitation after a fall	3hrs/week	3 hrs
▪ Rehabilitation after hip, knee replacement	3hrs/week	3hrs
▪ Osteoporosis ▪ Diagnostic workup for osteoporosis ▪ Consequences of osteoporosis	3hrs/week	3 hrs
▪ Prevention of osteoporosis ▪ Treatment of osteoporosis	3hrs/week	3 hrs
▪ Cardiovascular disease	3hrs/week	3 hrs
▪ Arthritis, osteoarthritis, spondylosis	4hrs/week	4hrs
▪ Aging with life-long disabilities	3hr/week	3hrs
▪ Risk factor for malnutrition ▪ Assessment of malnutrition ▪ Treatment of malnutrition	3hr/week	3hrs

(4) Teaching methods.

4.1: Lectures

4.2: clinical seminars

(5) Assessment methods:

5.1: Final written exam for assessment of knowledge and intellectual ILOS

5.2 MCQ continuous assessment for knowledge and intellectual ILOS

5.3: Log book

Percentage of each Assessment to the total mark.

Written exam:.100 mark

MCQ: 20 Marks

(6) References of the course:

6.1: Hand books: Geriatric Rehabilitation Manual (2rıa edition) by Kauffman

6.2: Text books: (a) Geriatric Rehabilitation: A Clinical Approach (3rd Edition) by Lewis and Bottomley

(b) Geriatric Rehabilitation: A Textbook for the Physical Therapist Assistant, by Bottomley

6.3: journals …….- Topics in Geriatric Rehabilitation.

…….- Journal of geriatric physical therapy

6.4: Websites:-Geriatric rehabilitation encyclopedia (http://en.wikipedia.org/wiki/Geriatric rehabilitation)..... http://www.ah.ouhsc.edu/geriatric resources/.....

6.5: Others: ……Attending meetings, conferences and worksho

(7) Facilities and resources mandatory for course completion:

1- Teaching tools:

-Computers and laptop for lectures presentation

-Data show projector and screen

- Laser pointer and white board

-Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

2- Outpatient clinic for collection of clinical cases

3- Pharmacy for pharmacological treatment of patients

4-Rehabilitation measures & physiotherapy equipments for rehabilitating patients

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof. Dr Basma El Kady

Date: -8-2016


قسم الروماتيزم و التأهيل
COURSE SPECIFICATION
REHABILITATION
OF
SPORTS INJUIRIES
(REH 516 RSI)
Rheumatology and Rehabilitation Department

COURSE SPECIFICATION
OF PHYSICAL MEDICINE AND REHABILITATION
Faculty of Medicine– Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(2) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department
(3) Department responsible for teaching the course:	Rheumatology & Rehabilitation and Physical Medicine department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Rehabilitation of Sports Injuiries (elective course)
(8) Course code:	**REH 516** RSI
(9) Credit hours	3 credit hours over one semester
(10) Total teaching hours:	(45 lectures /15 weeks)

(B) Professional information

(1) Course Aims.

The broad aims of the course are as follows:

1. Provide fellows with a broad knowledge base of medical issues surrounding exercise and athletic competition.
2. To train fellows in the field of sports medicine to become academic leaders in the care of sports related problems in children, adolescents and adults.
3. Provide the clinical education necessary to evaluate and treat a wide variety of sports related problems and allow the physician to become a teacher and researcher in sports medicine.

(2) Intended Learning Outcomes (ILOs)

On successful completion of the course, the candidate will be able to,

A- **Knowledge and Understanding**

A1- Identify various types of sport injuries of different joints and body regions with their underlying mechanisms.

A2- Describe exercise guidelines and principles of rehabilitation program in the management of sport injuries.

B- Intellectual skills

B1- Integrate patient's symptomatology, historic data, abnormal physical signs and investigations into diagnosis of various sport injuries.

B2-Formulate appropriate management plans with proper tailored rehabilitation program for individual patients presenting with sport injuries.

B3- Compose exercise/therapy prescription with specific diagnosis of particular sport injuries**.**

(3) course content:

Subjects	Lectures	Total Teaching Hours (15 wks)
Foot Injuries: Foot pain, Plantar fasciitis, Bruised heel Blisters , Bunions , Plantar fascia strain, Metatarsal fracture, Mortons neuroma, Metatarsalgia , Turf toe, Athletes foot , Heel pain	4 hr/week	4 h
Lower Leg & Ankle Injuries : Ankle pain, Sprained ankle, Broken ankle, Shin splints, Calf strain , Achilles tendon rupture Achilles pain, Sever's disease, Anterior compartment syndrome, Peroneal tendinopathy, Cramp, Calf pain, Ankle exercises	2 hrs/w for 2 wks	4 h
Knee Injuries: Knee Pain, Patella pain syndrome, ACL injury, Iliotibial band syndrome, jumper's knee, Osgood schlatters disease, Posterior cruciate ligament injury, Medial cartilage meniscus injury, Medial ligament injury, Osteoarthritis, Housemaids knee, Articular cartilage injury, Quadriceps tendon inflammation, Bakers cyst, Knee exercises	3 hrs/w for 2 wks	6 h
Low Back Pain: Low back pain, Lumbago, Scoliosis, Sciatica, SI joint , Facet joint pain, Muscle strains, Slipped disc, Back exercises.	3 hrs/w for 2 wks	6 h
Upper Back & Neck Pain: Neck pain, Whiplash, Cervical posture syndromes, Scheuermanns disease	3 hrs/w for 2 wks	6 h
Head Injuries	3 hrs/w for 2 wks	6 h

Elbow Injuries Elbow pain, Tennis elbow, Golfer's elbow, Triceps tendon rupture , Hyperextension injury, Students elbow	3 hr/week	3 h
Wrist & Hand Injuries Wrist & hand pain, Wrist bursitis, Carpal tunnel syndrome , Repetitive strain injuries, Fractured scaphoid, Metacarpal fracture, Sprained thumb, De Quervains tenosynovitis , Wrist exercises	4 hr/week	4 h
- **Sports Massage** - **Strapping & Taping**	3 hr/week	3 h
- **Stretching** - **Strengthening**	3 hr/week	3 h

(4) Teaching methods:

4.1: Lectures

4.2: Scientific seminars

(5) Assessment methods:

5.1: Final written exam for assessment of knowledge and intellectual ILOS

5.2 MCQ continuous assessment for knowledge and intellectual ILOS

5.3: Log book

Percentage of each Assessment to the total mark.

Written exam:.80 mark

MCQ: 20 Marks

(6) References of the course:

6.1: Handbooks: Sports medicine secrets By Mellion, Putukian, and Madden, 3rd edition

6.2: Text books: ....Textbook of Sports Medicine: Science and Clinical Aspects of Sports Injury and Physical Activity by Kjaer, Krogsgaard, Magnusson, Engebretsen, Roos, Takala, Woo (Editors).....

6.3: journals:…….. American Journal of Sports Medicine..... .....British Journal of Sports Medicine…….. .....Journals of Orthopedics.

6.4: Websites: (a) Sport injuries encyclopedia

(http://en.wikipedia.org/wiki/Sports injury).

(b) Sports Injuries : MedlinePlus

(http://www.nlm.nih.gov/medlineplus/sportsinjuries.html)

6.5: Others:…… Attending meetings, conferences and workshops

(7) Facilities and resources mandatory for course completion:

1- Teaching tools:

-Computers and laptop for lectures presentation

-Data show projector and screen

- Laser pointer and white board

- Comfortable well prepared classroom with comfortable desks, good source of aeration and good illumination.

2- Outpatient clinic for collection of clinical cases

3- Pharmacy for pharmacological treatment of patients

4-Rehabilitation measures & physiotherapy equipments for rehabilitating patients

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof. Dr Basma El-Kady

Date: -8-2016

COURSE SPECIFICATION

REHABILITATION

OF

CLINICAL IMMUNOLOGY

(Advanced Course)

(REH 516 CI)

COURSE SPECIFICATION
OF PHYSICAL MEDICINE AND REHABILITATION
Faculty of Medicine- Mansoura University

(A) Administrative information

(1) Programme offering the course:	Postgraduate Master degree of Rheumatology & Rehabilitation and Physical Medicine/ REH 500
(2) Department offering the programme:	Rheumatology & Rehabilitation and Physical Medicine department
(3) Department responsible for teaching the course:	Clinical Pathology department
(4) Part of the programme:	Second part
(5) Date of approval by the Department`s council	/8/2016
(6) Date of last approval of programme specification by Faculty council	9/8/2016
(7) Course title:	Clinical Immunology (advanced course) (elective course)
(8) Course code:	**REH 516** CI
(9) Credit hours	3 credit hours over one semester
(10) Total teaching hours:	(45 lectures /15 weeks)

(B) Professional information

(1) Course Aims:

The broad aims of the course are as follows:

1-To provide fellows with the professional and advanced knowledge required to perform as a qualified, specialized and independent consultants in clinical immunology and rheumatology.

2- To provide exciting and productive intellectual skills -together with the updated and advanced immunological knowledge- for those individuals interested in developing careers as independent clinical rheumatology physician-scientists.

(2) Intended learning outcomes (ILOs);

A- Knowledge and Understanding:

A1- Identify the principles of molecular genetics and gene polymorphisms.

A2- Understand genetic basis of different autoimmune rheumatic diseases and connective tissue disorders.

A3- Recognize recent trends in immunotherapy with emphasis on autoimmune rheumatic disorders.

A4. Know the basics of bone marrow transplantation and blood banks.

B- Intellectual skills:

B1- Interpret immunological laboratory investigation of rheumatic and musculoskeletal disorders related to disturbed immunity.

B2- Integrate advanced knowledge of immunology in diagnosis of patients with autoimmune rheumatic disorders.

B3- Apply immunotherapy when needed in the management of different autoimmune rheumatic disorders.

(3) Course content:

Subjects	Lectures	Total Teaching Hours15 weeks
Basics of genetics	3 hr/week For 3 weeks	9 hrs
Genetic basis of autoimmune diseases.	3 hr/week for 4 weeks	12 hrs
Immunotherapy	3 hr/week for 4 weeks	12 hrs
Blood Banks	3 hr/week for 4 weeks	12 hrs

(4) Teaching methods

4.1: Lectures

5) Assessment methods:

5.1: Final written exam for assessment of knowledge and intellectual ILOS

5.2 MCQ continuous assessment forknowledge and intellectual ILOS

5.2: Log book

Percentage of each Assessment to the total mark

Written exam.: 80 marks

MCQ : 20 Marks

(6) References of the course:

6.1: Hand books**:** Handbook of Human Immunology, Second Edition by **O'Gorman**, **Donnenberg** (Editor)

6.2: Text books: (a)Basic Immunology Updated Edition: Functions and Disorders of the Immune System, 3rd edition by Abbas and Licht

(b) Cellular and Molecular Immunology Text book, 7th edition by Abbas, Lichtman and Pillai

6.3: Journals:……. Annual Review of Immunology

…….Immunity……..

..... The Journal of Immunology

…….Journal of Clinical Immunolology

6.4: Websites:……http://www.their munology.com/

.....http://www.acaai.org/

(7) Facilities and resources mandatory for course completion:

- Laptop and data show projector
- Laser pointer and blackboard
- Comfortable and well prepared **classroom**

Course coordinator: Dr Shereen Aly Machaly

Head of the department: Prof. Dr Basma El-Kady

Date: -8-2016