Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	10/12/2011
- Prof. Ahmad K. Mansur	Mansura	28/11/2011

Program Specification of Master degree in Physical medicine, Rheumatology & Rehabilitation

Sohag University **Faculty of Medicine**

A. Basic Information

1. Program title: Master in Physical Medicine, Rheumatology and Rehabilitation
2. Program type: Single
3. Faculty: Faculty of Medicine
4. Department: Physical medicine, Rheumatology & Rehabilitation
5. Coordinator: Dr. Mohammed Ali Esmail
6. Assistant Coordinator: Usama Deif Alla.
7. External evaluator: Prof. Tayseer Mohammed Khedr
8. Last date of program specifications approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018.

B. Professional Information

1. Program aims

The aim of this program is to provide the postgraduate student with the medical knowledge and skills essential for the practice of specialty and necessary to gain further training and practice in the field of Physical Medicine, Rheumatology and Rehabilitation through providing:

1. Scientific knowledge essential for practice of Physical Medicine, Rheumatology and Rehabilitation according to the international standards.
2. Skills necessary for proper diagnosis and management of patients in the field of Physical Medicine, Rheumatology and Rehabilitation including diagnostic, problem solving and decision making skills.
3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs assessment and problems solving.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Maintenance of research interest and abilities.

2. Attributes of the post graduate:

1. Mastering the basics of scientific research methodologies.
2. The application of the analytical method and used in the field of Rheumatology and Rehabilitation.
3. The application of specialized knowledge and integrate it with the relevant knowledge in practice.
4. Be aware of the problems and has modern visions in the field of Rheumatology and Rehabilitation.
5. Identify problems in the field of Rheumatology and Rehabilitation. and find solutions to them.
6. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
7. Communicate effectively and the ability to lead work teams.

Program Specification of Master degree in Physical medicine, Rheumatology & Rehabilitation

Sohag University **Faculty of Medicine**

A. Basic Information

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2. Program type: Single
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B. Professional Information

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5. Identify problems in the field of Rheumatology and Rehabilitation. and find solutions to them.
6. Mastery of professional skills in this specialty and use of the appropriate recent technologies supporting these skills.
7. Communicate effectively and the ability to lead work teams.

8. Decision-making in his professional contexts.
9. To employ and preserve the available resources to achieve the highest benefit.
10. Awareness of his role in the community development and preservation of the environment at the lights of both international and regional variables.
11. Reflects the commitment to act with integrity and credibility, responsibility and commitment to rules of the profession.
12. Academic and professional self development and be capable of continuous learning.

3. Intended learning outcomes (ILOs)

a) Knowledge and understanding

By the end of the study of Master program in rheumatological the Graduate should be able to:

a1. Mention the normal structure and function of the musculoskeletal and neuromuscular systems of the human body
a2. Mention the abnormal structure, function, growth and development of the musculoskeletal and neuromuscular systems of the human body.
a3. Have sound knowledge on the basics of the immune system.
a4. Mention the physiology of muscle and nerve and the physiology of central nervous system
a5. Mention the nature of pain and pain control systems
a6. Mention theories, fundamentals and knowledge in the field of Rheumatology specialty and related fields.
a7. Describe the pathology, clinical symptoms and complications of each rheumatological disease.
a8. Mention theories, modalities and recent knowledge in the field of Physical Medicine and Rehabilitation specialty.
a9. List the sex, age and ethnic differences for different rheumatological diseases
a10. Enumerate the differential diagnosis of rheumatological diseases.
a11. Mention the various therapeutic methods/alternatives used for rheumatological diseases
a12. List the definition and types of handicap.
a13. Enumerate and Define the different physical modalities and their uses and contraindications.
a14. Follow the scientific developments in the field of Physical Medicine, Rheumatology and Rehabilitation
a15. Mention the mutual influence between professional practice and its impacts on the environment.
a16. Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation
a17. Mention the principles and fundamentals of quality of professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation
a18. Have an idea about the basics and ethics of scientific research.

b) Intellectual skills

By the end of the study of Master program in rheumatological the Graduate should be able to:

b1. Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
b2. Interpret data acquired through history taking to reach a provisional diagnosis.
b3. Assess the function of the motor system
b4. Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.
b5. Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.
b6. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Physical Medicine, Rheumatology and Rehabilitation.
b7. Link between knowledge for Professional problems' solving.
b8. Conduct a research study and / or write a scientific study on a research problem.
b9. Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation
b10. Plan to improve performance in the field of Physical Medicine, Rheumatology and Rehabilitation
b11. Identify Rheumatologic and Rehabilitational Problems and find solutions.
b12. Analyze researches and issues related to the Physical Medicine, Rheumatology and Rehabilitation.

c) Professional and practical skills

By the end of the study of Master program in rheumatological the Graduate should be able to:

c1. Apply the basic and modern professional, clinical and medical skills in the area of Physical Medicine, Rheumatology and Rehabilitation
c2. Perform complete history and full physical examination of rheumatic patients, and patients needing rehabilitation.
c3. Interpret the results of diagnostic procedures.
c4. Diagnose rheumatological illnesses.
c5. Write a professional treatment prescription.
c6. Write and evaluate medical reports.
c7. Perform and evaluate methods and tools existing in the area of Physical Medicine, Rheumatology and Rehabilitation
c8. Deal with the possible complications of the diseases themselves or their treatments.
c9. Apply rehabilitation program for the different varieties of disabilities.
c10. Inject joints and soft tissues.
c11. Use technological methods to serve the professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation.

d) General and transferable skills

By the end of the study of Master program in rheumatological the Graduate should be able to:

d1. Communicate effectively by all types of effective communication.
d2. Establish a good patient-physician relationship

d3. Coordinate with other specialities regarding management of some patients who need this coordination.
d4. Use information technology to serve the development of professional practice
d5. Choose and use the suitable computer program packages
d6. Apply self-assessment methods and identify personal learning needs.
d7. Use different sources for acquiring information and knowledge.
d8. Teach others and evaluate their performance.
d9. Develop rules and indicators to assess the performance of others.
d10. Work as a part of a team and manage a group of people in a work environment.
d11. Manage time efficiently.
d12. Have the ability for continuous self-learning.

4. Academic standards

Sohag Faculty of Medicine adopted the general National Academic Reference Standards (NARS) provided by the National Authority for Quality Assurance and Accreditation of Education (NAQAEE) for postgraduate programs. This was approved by the Faculty Council decree No. 6854, in its session No. 177, dated 18/5/2009. Based on these NARS, Academic Reference Standards were suggested for this program. These ARS were revised by external evaluator, and approved by the Faculty Council decree No.7528, in its session No. 191, dated 15/3/2010. The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. dated 26-12-2011.

5. Curriculum Structure and Contents

5.a- Program duration: 6 semesters (3 years)

5.b- Program structure:

5.b.i- No. of hours per week:

Subject	No. of Hours/Week		
	Lectures	Practical	Clinical
First Part:			
Basic Sciences:			
Anatomy	2	-	-
Physiology	2	-	-
Neurology	1	-	2
Orthopedic Surgery	1	-	2
Applied Physics	2	4	-
Computer, statistics and Methodology	1	2	-
Second Part:			
Majors:			
Rheumatic Diseases	2	-	3
Immunology	2	-	3
Physical Medicine	1	-	2
Rehabilitation Medicine	2	-	2

code	Item		No	%
b.i	Total credit hours	Compulsory	50	100
		Elective	0	0

	Optional	0	0
b.iii	credit hours of basic sciences courses	8	16
b.iv	credit hours of courses of social sciences and humanities	0	0
b.v	credit hours of specialized courses:	29	58
b.vi	credit hours of other course	2	4
b.vii	Practical/Field Training	5	10
b.viii	Program Levels (in credit-hours system): Level 1: 1st part Level 2: 2nd Part Level 3: Thesis	 14 25 6	 30 48 12

6. **Program courses** All the 7 courses are compulsory.

Semester…1…..

First Part:

a. Compulsory

Course Title	No of credit hours	No. of hours/week			Program ILOs
		Lect.	Pract.	Clin.	
Anatomy	2	2			a1, a9, a12, b3, c1, c10, d4, d6, d7
Medical Physiology	2	2			a1, a4, a5, b3, b5, b6, c1, c3, d4, d6, d7
Neurology	2	1		2	a1, a2, a4, a5, b1, b3, b5, b7,b9, c3, c9, d1, d2, d3
Orthopaedic Surgery	2	1		2	a2, a6, b1, b4, b7, b9, c3, c9, d1, d2, d3
Applied Physics	4	2	4		a8, a13, b1, b10, b11, c7, c11, d4, d5, d8, d10, d11
Computer, Statistics and Methodology	2	1	2		a8,b1,b4,b5,b7,c1,c3,d1,d2,d3,d4,d6, d7,d8

Second part:

a. Compulsory

Course Title	No of credit hours	No. of hours/week			Program ILOs
		Lect.	Pract.	Clin.	
Rheumatology	7	2		3	a2, a6, a7, a9, a10, a11, a14, a15, a16, a17, a18, b1, b2, b4, b6, b7, b8, b9, b10, b11, b12, c1, c2, c3, c4, c5, c6, c7, c8, c11, d1, d2, d3, d4, d6, d7, d8, d9, d10, d12
Immunology	7	2		3	a3, a6, a10, b1, b6, b7, b10, b11, c3, c4, c6, d4, d5, d6, d7, d10, d12
Physical Medicine	5	1		2	a4, a8, a11, a13, a14, a15, a16, a17, b1, b3, b6, b7, b9, b10, b12, c1, c6, c7, c11, d2, d4, d6, d7, d10, d11
Rehabilitation Medicine	6	2		2	a5, a8, a9, a12, a14, a15, a16, a17, a18, b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, c1, c2, c3, c6, c7, c8, c9, c10, c11, d1, d2, d3, d4, d6, d7, d8, d9, d10, d11, d12

7. Program Admission Requirements

I- General Requirements.

1. Candidate should have either:
   i. MBBch degree from any Egyptian Faculty of Medicine or
   ii. Equivalent Degree from Medical Schools abroad approved by the ministry of high Education.
2. Candidate should pass the house office training year.
3. Those who are not university hospital residents should pass a training for at least 12 months in one of the known hospitals.
4. Follow postgraduate bylaw Regulatory rules of Sohag Faculty of Medicine approved by the ministerial decree No. (44), dated 6/1/2010.

II- Specific Requirements.

1. Candidates graduated from Egyptian Universities should have at least "Good Rank" in their final year/ cumulative years examination, and grade "Good Rank" in Rheumatology course too.
2. Candidate should know how to speak & write English well
3. Candidate should have computer skills

8. Regulations for Progression and Program Completion

Duration of program is 50 credit hours (≥4 semesters ≥3 years), starting from registration till 2nd part exam; divided to:

First Part: (15 Credit hours ≥6 months ≥1 semester):

- Program-related basic & clinical sciences & research Methodology, Ethics & medical reports, Biostatistics and computer.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in October — 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the first part exam, a score of at least 60% (Level D) in each course is needed.
- Those who fail in one course need to re-exam it only for the next time only, and if re-fail, should register for the course from the start.

Thesis/Essay(6 Credit hours ≥6 months=1 semester):

- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the **Thesis/Essay** subject.
- Should be completed, defended and accepted after passing the 1st part examination, and at least one month before allowing to enter 2nd part final examination.
- Accepting the thesis is enough to pass this part.

Second Part: (24 Credit hours ≥18 months= 3 semesters):

- Program related specialized science of Rheumatology courses.
- Completion of the 1st part credit hours and passing the exams are pre requisites for documentation of the 2nd part courses.
- After passing at least:

- University hospital residents: 36 months residency in the department of Obstetrics & Gynecology.
- Residents in other places: Completed 36 months residency; 12 months of them training in the department of Rheumatology.

- The students should pass the 1st part before asking for examination in the 2nd part.
- Fulfillment of the requirements in each course as described in the template and registered in the log book (5 Credit hours; with obtaining ≥75% of its mark) is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; the credit hours of the logbook are calculated as following:
  - Each Cr. Hr.= 60 working Hrs.
  - Logbook= 5 Cr. Hr. X 60 working Hrs = 300 Working Hrs.
  - Collection of working Hrs. is as following:

Activity		**Hrs**
Grand rounds	**اجتماع علمى موسع**	**٦**
Training courses	**دورات تدريبية**	**12/ day**
Conference attendance	**حضور مؤتمرات علمية** **داخلى** **خارجة**	 **١٢/day** **18/day**
Thesis discussion	**حضور مناقشات رسائل**	**٦**
Workshops	**حضور ورش عمل**	**١٢/day**
Journal club	**ندوة الدوريات الحديثة**	**٦**
Seminars	**لقاء علمى موسع**	**٦**
Morbidity and Mortality conference	**ندوة تحليل المخاطر المرضية أوالوفاة**	**٦**
Self education program	**برنامج التعليم الذاتى**	**٦**

- Two sets of exams: 1st in October - 2nd in April.
- At least 50% of the written exam is needed to pass in each course.
- For the student to pass the 2nd part exam, a score of at least 60% (Level D) in each course is needed.

9. Methods of student assessments:

Method of assessment	weight	The assessed ILOs
1-Activities		- General transferable skills, intellectual skills
2-Written Exams: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	50%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSCE/ OSPE	50%	-Practical skills, intellectual skills, general transferable skills
4-Structured Oral Exams		- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Anatomy: Written Exam (2 hours) + Structured oral Exam
- Medical Physiology: Written Exam (2 hours) + Structured oral Exam
- Neurology: Written Exam (2 hours) + Structured oral Exam+ OSCE
- Orthopedic Surgery: Written Exam (2 hours) + Structured oral Exam+ OSCE
- Applied Physics: Written Exam (2 hours) + Structured oral Exam
- Biostatistics & Computer and Research Methodology: Written Exam (2 hours) + Structured oral Exam+ OSPE

Part II:

- Rheumatology Diseases and Immunology: Written Exam (3 hours) + OSCE + Structured oral Exam.
- Rehabilitation Medicine: Written Exam (3 hours) + OSCE + Structured oral Exam.
- Artificial limbs and prosthetic devices: Structured oral Exam + OSPE.

10. Evaluation of program intended learning outcomes

Evaluator	Tool	Sample
1- Senior students	Questionnaire	8
2- Alumni	Questionnaire	11
3- Stakeholders (Employers)	Questionnaire	30
4-External Evaluator(s) (External Examiner(s))	Report	1
5- Other		

Course Specification of Medical Physiology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Medical Physiology
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Course Specification of Medical physiology

Code:PHY0527-200

Total hours:

Module	Lectures	Practical	Clinical	Total hours	Credit
Physiology	**30**	**-**	**-**	**30**	**2**

B. Professional Information

1. Overall Aims of Course

to prepare a Rheumatology & rehabilitation physician oriented with the physiology of muscle and nerve, also that of C.N.S &endocrine physiology. in addition , graduates should have enough knowledge about the regulation of body temperature, body fluids, homeostasis & haemostasis.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Mention the normal function of the musculoskeletal and neuromuscular systems of the human body

a2. Mention the physiology of muscle and nerve and the physiology of central nervous system

a3. Mention the nature of pain and pain control systems.

b) Intellectual Skills:

By the end of the course the student should be able to:

b1.Assess the function of the motor system

b2.Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.

b3.Choose and apply the suitable diagnostic tests to assess the neuromuscular Physiological changes in different diseases

c) Professional and Practical Skills:

By the end of the course the student should be able to:

c1. Apply the basic and professional Physiological skills in the area of Physical Medicine, Rheumatology and Rehabilitation
c2. Interpret the results of diagnostic procedures concerning the neuromuscular physiology.

d) General and Transferrable Skills:

By the end of the course the student should be able to:

d1. Use information technology to serve the development of professional practice
d2. Apply self-assessment methods and identify personal learning needs.
d3. Use different sources for acquiring information and knowledge.

3. Contents

Topic	No. of hours	Lecture
The physiology of central nervous system • Pain sensation. • Pain control system • Stretch reflex	 4 3 5	 4 3 5
The physiology of muscle and nerve • Characteristics of nerves • Electrical examination of muscles and nerves • Mechanism of muscle contraction • Types of muscle contraction • Control of muscle contraction • Energy consumption of muscle contraction	 3 3 4 3 3 2	 3 3 4 3 3 2
Total Hours	**30**	**30**
Total Credit Hours	**2**	**2**

4. Teaching and Learning Methods

4-1 Lectures.
4-2 Clinical lessons.
4-3 Seminars.
4-4 Assignments for the students to empower and assess the general and transferrable skills.
4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

1- Assessment 1: written examination week 24
2- Assessment 2: Structured Oral Exam week 24
4- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	50 %
Total	100%

Formative only assessments: attendance and absenteeism, assignment

6. List of References

6.2- Essential Books (Text Books)

Gyton textbook of physiology

7. Facilities Required for Teaching and Learning

1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: DR. Hoda Mostafa

Head of Department: Prof. Hoda Mostafa

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013,Revised:1/12/2018

Course Specification of Human Anatomy & Embryology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Human Anatomy & Embryology
5. Academic year / Level: 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Human Anatomy & Embryology
Code: ANA0527-200
Total hours:

Module	Lectures	Practical	Clinical	Total hours	Credit
Anatomy	**30**	**-**	**-**	**30**	**2**

B. Professional Information

1. Overall Aims of Course

By the end of the course the student should be able to have the have the professional knowledge about the anatomy of the upper limb, lower limb and vertebral column

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Mention the normal structure of the musculoskeletal and neuromuscular systems of the human body
a2. List the sex, age and ethnic anatomical differences.
a3. List the definition and types of handicap and deformities.

b) Intellectual skills:

By the end of the course the student should be able to:

b1. Assess the integrity and function of the motor system

c) Professional and Practical skills:

By the end of the course the student should be able to:

c1. Apply the basic and professional anatomical skills in the area of Physical Medicine, Rheumatology and Rehabilitation
c2. Know the accurate surface marking and anatomical landmarks needed for injecting joints and soft tissue rheumatic disorders

d) General and Transferrable skills:

By the end of the course the student should be able to:

d1. Use information technology to serve the development of professional practice

d2. Apply self-assessment methods and identify personal learning needs.
d3. Use different sources for acquiring information and knowledge.

3. Contents

Topic	No. of hours	Lecture
Introduction	2	2
Anatomy of the upper limb • Skelton of the upper limb. • Muscles of the upper limb. • Joints of the upper limb. • Blood vessels of the upper limb. • Nerves of the upper limb. • Anatomy of the hand.	8 1.5 2 1.5 1 1 1	8 1.5 2 1.5 1 1 1
Anatomy of the lower limb • Skelton of the lower limb. • Muscles of the lower limb. • Joints of the lower limb. • Blood vessels of the lower limb. • Nerves of the lower limb. • Anatomy of the foot.	8 1.5 2 1.5 1 1 1	8 1.5 2 1.5 1 1 1
Anatomy of the vertebral column	3	3
Anatomy of the back	3	3
Anatomy of the spinal nerves	2	2
Revision	4	4
Total Hours	**30**	**30**
Total Credit Hours	**2**	**2**

4. Teaching and Learning Methods

4-1 Lectures.
4-2 Clinical lessons.
4-3 Seminars.
4-4 Assignments for the students to empower and assess the general and transferrable skills.
4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

5.4 assignment	-General transferable skills, intellectual skills

Assessment Schedule

1- Assessment 1: written examination week 24
2- Assessment 2: Structured Oral Exam week 24
4- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	50 %
Total	100%

Formative only assessments: attendance and absenteeism, assignment

6. List of References

6.1- Essential Books (Text Books)

- Fitzgerald M.J.T. (2016): The anatomical basis of medicine and surgery. By Standing s., ELIS H., Healy J. C., Johnson D. and Williams A. Gray's Anatomy. Elsevier; London, New York. Sydney. Toronto.

6.2- Recommended Books

- Stevens A. and Lowe J. S. (2015): Human histology; 5th edition; edited by Elsevier Mosby
- Colored Atlas of anatomy.
- Martini F. H., Timmons M. J. and McKinley M.P. (2015): Human anatomy; 10 edition.
- Tortora G. J. and Nielson M.T. (2016): Principles of human anatomy 14 edition; Edited by John Wiley and Sons ; United states.
- McMinn R.M.H. (2017): Lasts anatomy regional and applied chapter 7; 14 edition, edited by Longman group UK.

7. Facilities Required for Teaching and Learning

4. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
5. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
6. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr .Mohamed Al Badry

Head of Department: Dr . Mohamed Al Badry.

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Neurology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Neurology and psychiatry Department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Neurology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Code: NEU 0527-200

Total hours:

Module	lectures	Practical	Clinical	Total hours	Credit
Neurology	**15**	**-**	**30**	**45**	**2**

B. Professional Information

1. Overall Aims of Course

Upon successful completion of this course, the graduate should be able to professionally analyze and interpret neurological cases and apply the obtained data independently in diagnosing the abnormalities in nervous system

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Mention the normal function of the neuromuscular systems of the human body

a2. Mention the abnormal function of the neuromuscular systems of the human body.

a3. Mention the physiology of muscle and nerve and the physiology of central nervous system

a4. Mention the nature of pain and pain control systems

b) Intellectual Skills:

By the end of the course the student should be able to:

b1. Analyze and evaluate neurological data and information and use it in the field of Physical Medicine, Rheumatology and Rehabilitation.

b2. Assess the function of the motor system

b3. Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.

b4. Link between knowledge for Professional problems' solving.

b5. Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation

c) Professional and Practical Skills:

By the end of the course the student should be able to:

c1. Interpret the results of diagnostic EMG and NCV.

c2. Apply rehabilitation programs for different neurological handicaps.

d) General and Transferrable Skills:

By the end of the course the student should be able to:

d-1 Communicate effectively by all types of effective communication.

d-2 Establish a good patient-physician relationship.

d-3 Communicate effectively with colleagues from neurology specialty to achieve the maximum benefit for the patients.

3. Course contents

Title	Total Hors	Lectures	Tutorial/ Practical
1- Paraplegia	6	2	4
2- Stroke	12	4	8
3- Myopathy	6	2	4
4- Neuropathy	12	4	8
5- Ataxia	9	3	6
Total Hours	45	15	30
Total credit hours	2	1	1

4. Teaching and Learning Methods

4-1 Lectures.

4-2 Clinical lessons.

4-3 Seminars.

4-4 Assignments for the students to empower and assess the general and transferrable skills.

4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills General transferable skills
5.5 assignment	-General transferable skills, intellectual skills

Assessment Schedule

1- Assessment 1: written examination week 24

2- Assessment 2: Structured Oral Exam week 24

3- Assessment 3: OSCE week 24

4- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	30 %
OSCE Examination	20 %
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books)

1. Brain 's Disease of The Nervous System.
2. Brain ' s Clinical Neurology.

6.2- Recommended Books

1. Adams & Victor's ,Principle of Clinical Neurology.
2. Neurology in clinical practice.
3. Clinical Neurology.
4. Manual of neurologic therapeutics.
5. Merret's Neurology.

6.3- Periodicals, Web Sites, … etc

1. http://www.google .com
2. http://www.ncbi.nlm.gov .com
3. http://www.freemedicaljournals.com

7. Facilities Required for Teaching and Learning

1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Hazem Kamal Ibrahem

Head of the Department: Prof. Dr. Ghareeb Fawy

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Orthopedic Surgery &Traumatology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Orthopedic Surgery &Traumatology department
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Orthopedic Surgery & Traumatology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Code: ORT0527-200

Total hours:

Module	lectures	Practical	Clinical	Total hours	Credit
Orthopedic surgery	**15**		**30**	**45**	**2**

B. Professional Information

1. Overall Aims of Course

By the end of this course the students should be able to have the professional knowledge of diagnosis of most orthopedic diseases so as to be able to professionally diagnose orthopedic diseases correctly and differentiate orthopedic diseases from rheumatic diseases.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Mention the abnormal structure, function, growth and development of the musculoskeletal systems of the human body.

a2. Have a background of knowledge about the common orthopedic diseases and congenital anomalies of the musculoskeletal system

b) Intellectual Skills

By the end of this course, the student should have the ability to:

b1. Analyze and evaluate orthopedic data and information and use it in the field of Physical Medicine, Rheumatology and Rehabilitation.

b2. Differentiate between true rheumatological complaints and those related to orthopedic diseases

b3. Link between knowledge for Professional problems' solving.

b4. Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation

c) Professional and Practical Skills

By the end of this course the student should be able to:

c1. Interpret the results of diagnostic imaging procedures.

c2. Apply rehabilitation programs for different orthopedic diseases and disabilities

d) General and Transferable Skills:

By the end of this course the student should be able to:

d1. Communicate effectively by all types of effective communication.

d2. Establish a good patient-physician relationship.

d3. Communicate effectively with colleagues from orthopedic surgery specialty to achieve the maximum benefit for the patients

3. Course contents

Topic	No. of hours	Lecture	Clinical
Poliomyelitis	4	2	2
Congenital Talipes Equinovarus	5	2	3
Infectious bone and joint diseases	7	2	5
Malignant bone and joint diseases	7	2	5
Traumatic joint and soft tissue disorders	10	3	7
Fractures and Fracture treatment	7	2	5
General Complications of fractures	5	2	3
Total hours	**45**	**15**	**30**
Total Credit Hours	**2**	**1**	**1**

4. Teaching and Learning Methods

4-1 Lectures.

4-2 Clinical lessons

4-3 Seminars

4-4 Assignments for the students to empower and assess the general and transferrable skills

4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills General transferable skills
5.5 assignment	-General transferable skills, intellectual skills

Assessment Schedule

1- Assessment 1: written examination week 24
2- Assessment 2: Structured Oral Exam week 24
3- Assessment 3: OSCE week 24
4- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	30 %
OSCE Examination	20 %
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books)

El-Zorqany Textbook of Orthopedic Surgery

7. Facilities Required for Teaching and Learning

4. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
5. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
6. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Ahmed El desoky

Head of the Department: Prof. Dr. El Shazly S Mousa

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Applied Physics in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Applied Physics **Code**:RHE0527-200

Total hours:

Lectures	Practical	Clinical	Total hours	Total Credit Hours
30	60	-	90	4

B. Professional Information

1. Overall Aims of Course

By the end of this course the master students should be able to have the professional knowledge of different physical modalities used for physiotherapy, and to have the skills of dealing with these modalities and devices in aim to relieve pain, minimize deformities and maximize function.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Have the basic knowledge about the theories of heating or cooling the body tissues, and the difference between superficial and deep heat.

a2. Mention the nature of Infra-red rays, Ultrasound waves, Short and microwaves and laser beam and their effect on living tissues.

a3. Enumerate the therapeutic effects of electricity and the uses of electric current in physiotherapy.

a4. Enumerate and Define the different physical modalities and their uses and contraindications.

b) Intellectual Skills

By the end of this course, the student should have the ability to:

b1. Analyze and evaluate data and information in the use of different physical modalities in the field of Physical Medicine and Rehabilitation and titration in accordance.

b2. Plan to improve performance in the field of Physical Medicine and Rehabilitation

b3. Identify Rehabilitational Problems and find solutions.

c) Professional and Practical Skills

By the end of this course the student should be able to:

c1. Perform and evaluate methods and tools existing in the area of Physical Medicine and Rehabilitation

c2. Use technological methods to serve the professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation.

d) General and Transferable Skills

d1. Use information technology to serve the development of professional practice

d2. Choose and use the suitable computer program packages

d3. Teach others and evaluate their performance.

d4. Work as a part of a team and manage a group of people in a work environment.

d5. Manage time efficiently.

3. Contents:

Topic	No. of hours	Lecture	Practical
Introduction to Applied Physics	7	4	3
Infra-Red	14	4	10
Therapeutic Ultrasonography	11	3	8
Ultraviolet rays	8	3	5
Shortwave and Microwave therapy	8	3	5
Cryotherapy	9	2	7
Electric Stimulation of muscles and nerves	17	7	10
Laser therapy	8	2	6
Paraffin Bath	8	2	6
Total Hours	**90**	**30**	**60**
Total Credit Hours	**4**	**2**	**2**

4. Teaching and Learning Methods

4-1 Lectures.

4-2 Clinical lessons.

4-3 Seminars.

4-4 Assignments for the students to empower and assess the general and transferrable skills.

4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4-OSCE	-Practical skills, intellectual skills

	General transferable skills
5.5 assignment	-General transferable skills, intellectual skills

5-2 Assessment Schedule

1- Assessment 1: written examination week 24
2- Assessment 2: Structured Oral Exam week 24
3- Assessment 3: OSCE week 24
4- Assessment of attendance & absenteeism throughout the course

5-3 Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	30 %
OSCE Examination	20 %
Total	100%

Formative only assessments: attendance and absenteeism

6. List of References

6.1- Essential Books (Text Books)
PM & R secrets

7. Facilities Required for Teaching and Learning

1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Usama Deif alla

Head of Department: Prof. Dr. Mohamed Ali Ismaeel

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specifications of Applied Biostatistics (with computer use) and Research Methodology for Master degree in Rheumatology

Sohag University **Faculty of Medicine**

1. Program title : Master degree in Physical medicine, Rheumatology & Rehabilitation
2. Major/minor element of the program : Minor
3. Department offering the course: Community Medicine and Public Health Dep.
4. Department offering the program: Physical medicine, Rheumatology & Rehabilitation
5. Academic year /level : 1st part
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Master degree in Physical medicine, Rheumatology & Rehabilitation and Computer use for health services **and Research Methodology**

Code: COM 0527-200

Total Hours:

Title	Lectures	Practical/ surgical	Total	credit
Applied biostatistics and computers & Research methodology	15	30	45	2

B. Professional Information

Applied Biostatistics Module:

1. <u>Overall Aims of Course</u>

a. To influence the students to adopt an analytical thinking for evidence based medicine.
b. To use precisely the research methodology in researches and computer programs SPSS, Epi Info and Excel in data analysis.

Research Methodology Module:

1. <u>Overall Aims of Course</u>

The aim of this course is to provide the postgraduate student with the advanced medical knowledge and skills essential for the mastery of practice of specialty and necessary to provide further training and practice in the field of Public health and Community Medicine through providing:

1. Recent scientific knowledge essential for the mastery of practice of Public Health and Community Medicine according to the international standards.
2. Skills necessary for preparing for proper diagnosis and management of community problems, skills for conducting and supervising researches on basic scientific methodology.
3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs assessment and problems identification.
5. Maintenance of learning abilities necessary for continuous medical education.
6. Upgrading research interest and abilities.

2. Intended Learning Outcomes of Courses (ILOs)

Applied Biostatistics Module:

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

a1. Mention different programs of analysis of data and statistical packages
a2. Define the recent advances of sources of data and methods of collection.
a3. Summarize data, construct tables and graphs
a4. Calculate measures of central tendency and measures of dispersion
a5. Describe the normal curves and its uses
a6. Illustrate selected tests of significance and the inferences obtained from such tests
a7. Illustrate selected tests of significance for parametric and non parametric inferences
a8. Identify factor analysis and discrimination analysis.

b) Intellectual Skills

By the end of the course, the student is expected to be allowed to:

b1. Mention how to collect and verify data from different sources
b2. Interpret data to diagnose prevalent problems Rheumatology

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

c1. Perform recent advanced technological methods in collection, analysis and interpretation of data and in management of prevalent problems in Rheumatology

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d1. Use appropriate computer program packages.
d2. Use of different sources for information and knowledge about biostatistics.

Research Methodology Module:

2. Intended Learning Outcomes of Courses (ILOs)

a) Knowledge and understanding:

By the end of the course, the student is expected to be able to:

a1. Define the recent advances of screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests.
a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values.
a3. Describe the study design, uses, and limitations.
a4. Mention the recent advances of principles, methodologies, tools and ethics of scientific research.
a5. Explain the strategies and design of researches.
a6. Describe bias and confounding.
a7. Describe sampling techniques and list advantages of sampling
a8. Identify principles of evidence based medicine.

b) Intellectual Skills

By the end of the course, the student is expected to be able to:

b1. Conduct research studies that add to knowledge.
b2. Formulate scientific papers in the area of public health and community medicine
b3. Innovate and create researches to find solutions to prevalent community health problems
b4. Criticize researches related to public health and community medicine

c) Professional and Practical Skills:

By the end of the course, the student is expected to be able to:

c1. Enumerate the basic and modern professional skills in conducting researches in the area of public health and community medicine.
c2. Design new methods, tools and ways of conducting researches. .

d) General and Transferable Skills:

By the end of the course, the student is expected to be able to:

d1. Use of different sources for information and knowledge to serve research.
d2. Work coherently and successfully as a part of a team and team's leadership in conducting researches and field studies.

3. Contents

Topic	No. of hours	Lecture	Tutorial/ Practical
Applied Biostatistics Module:			
Recent advances in collection, analysis and interpretation of data	3	1	2
-Details of Tests of significance: Proportion test	3	1	2
-Chi-square test	1.5	.5	1
-Student T test	1.5	.5	1
-Paired T test	1.5	.5	1
-Correlation	1.5	.5	1
-Regression	2	1	1
-ANOVA test	3	1	2
-Discrimination analysis	3	1	2
-Factor analysis	3	1	2
-Parametric and non parametric tests	4.5	.5	4

Research Methodology Module:			
Details of epidemiological studies (case control, cohort and cross sectional)	3	1	2
Clinical trials, Quasi experimental study	3	1	2
Bias and errors	2	1	1
Setting a hypothesis	1.5	.5	1
Recent advances in screening	1.5	.5	1
- Evidence – based Medicine: Concept and examples Applicability Scientific writing: A protocol A curriculum	3	1	2
Setting an objective - Critical thinking	2	1	1
Formulation of papers	1.5	.5	1
Total hours	**45**	**15**	**30**
Total Credit hours	**2**	**1**	**1**

4. Teaching and Learning Methods

4.1- Lectures
4.2- Practical sessions
4.3- Computer search assignments
4.4- Computer application

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exams:	- Knowledge
-Short essay: 40%	- Knowledge
-structured questions: 25%	- Knowledge, intellectual skills
-MCQs: 20%	- Intellectual skills, General transferable skills,
-Commentary, Problem solving: 15%	- Practical skills, intellectual skills
5.3-Structured Oral Exams	- Knowledge
5.4Computer search assignment	- general transferable skills, intellectual skills

Assessment Schedule

Assessment 1….Final written exam Week: 24
Assessment 2…..Final oral exam Week: 24
Assessment 3 Attendance and absenteeism throughout the course
Assessment 4 Computer search assignment performance throughout the course

Weighting of Assessments

Final-term written examination	50%
Final oral Examination	50%
Total	100%

Formative only assessments: attendance and absenteeism and Computer search assignments performance.

6. List of References

Applied Biostatistics Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, 2008.,Robert Wallace, publisher McGraw-Hill Medical; 15 edition.

6.2- Recommended Books

1- Dimensions of Community Based projects in Health Care, 2018. Arxer, Steven L., Murphy, John W.; 1st edition.

2- Parks Text Book of Preventive & Social Medicine. 2017., K. Park. BanarsidasBhanot Publishers; 23 edition.

3- Clinical Epidemiology: The Essentials, 2013, Robert F., Suzanne W. Fletcher, Grant S., publisher Lippincott Williams & Wilkins; 5 edition.

6.3- Periodicals, Web Sites, …etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

3- WWW. CDC and WHO sites

Research Methodology Module:

6.1- Essential Books (Text Books)

1-Maxy-Rosenau Public health and preventive medicine, Prentice – Hall International Inc

6.2- Recommended Books

1- Dimensions of Community Health, Boston Burr Ridge Dubuque.

2- Short Textbook of preventive & social Medicine Prentice-Hall International Inc.

3- Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo

6.3- Periodicals, Web Sites, etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

3-WWW. CDC and WHO sites

7. Facilities Required for Teaching and Learning:

Applied Biostatistics Module:

- Adequate conditioned space for staff and assistants.
- Adequate conditioned teaching facilities.
- Audiovisual Aids: Data show, overhead and slide projectors and their requirements.

Research Methodology Module:

- ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.

- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printers.

Course Coordinator: Dr/**Rasha Abd El Hameed**

Head of Department: Prof/ Ahmed Fathy Hamed

Date: Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Second Part in Master degree of Physical Medicine, Rheumatology and Rehabilitation in Physical Medicine, Rheumatology and Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Rheumatology and Immunology
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Second part courses of Master Degree in Physical Medicine, Rheumatology and Rehabilitation

Code: RHE0527-200

Total hours:

Module	Lectures	Clinical	Total hours	Credit
Rheumatology	60	90	150	7
Immunology	60	90	150	7

B. Professional Information

1. Overall Aims of Course

By the end of this course the students should be able to have the professional knowledge of diagnosis of most rheumatological diseases so as to be able to professionally protect, diagnose and advice the Rheumatology patient correctly, and should be able to have the professional knowledge of different physical modalities available for treating and palliating physically handicapped patients and to have the skills of dealing with these conditions so as to minimize the handicap and pain and maximize function of the affected organs and systems.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

Module 1: Rheumatology

a1. Mention the abnormal structure, function, growth and development of the musculoskeletal and neuromuscular systems of the human body and the aetiopathogenesis of rheumatological diseases.
a2. Mention theories, fundamentals and knowledge in the field of Rheumatology specialty.
a3. Describe the pathology, clinical symptoms and complications of each rheumatological disease.
a4. List the sex, age and ethnic differences for different rheumatological diseases
a5. List the differential diagnosis of rheumatological diseases.
a6. Mention the various therapeutic methods/alternatives used for rheumatological diseases
a7. Follow the scientific developments in the field of Rheumatology.
a8. Mention the mutual influence between professional practice and its impacts on the environment.
a9. Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Rheumatology.
a10. List the principles and fundamentals of quality of professional practice in the field of Rheumatology.
a11. Have an idea about the basics and ethics of scientific research.

Module 2: Immunology

a1. Have sound knowledge on the basics of the immune system.
a2. Mention theories, fundamentals and knowledge in the field of immunologically determined rheumatological diseases.
a3. List the differential diagnosis of immunological and auto-immune diseases.

b) Intellectual Skills

By the end of the course the student should have the ability to:

Module 1: Rheumatology

b1. Analyze and evaluate data and information in the field of Rheumatology and titration in accordance.
b2. Interpret data acquired through history taking to reach a provisional diagnosis.
b3. Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.
b4. Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Rheumatological diseases.
b5. Link between knowledge for Professional problems' solving.
b6. Conduct a research study and / or write a scientific study on a research problem.
b7. Assess risk in professional practices in the field of Rheumatology.
b8. Plan to improve performance in the field of Rheumatology.
b9. Identify Rheumatologic Problems and find solutions.
b10. Analyze researches and issues related to the Rheumatology.

Module 2: Immunology

b1. Analyze and evaluate data and information in the field of Immunology and titration in accordance.
b2. Select from different diagnostic immunological alternatives the ones that help reaching a final diagnosis for Rheumatological diseases.
b3. Link between knowledge for Professional problems' solving.

b4. Plan to improve performance in the field of Rheumatology.
b5. Identify Rheumatologic Problems and find solutions.

c) Professional and Practical Skills

By the end of the course the student should have the ability to:

Module 1: Rheumatology

c1. Apply the basic and modern professional, clinical and medical skills in the area of Rheumatology.
c2. Perform complete history and full physical examination of rheumatic patients.
c3. Interpret the results of diagnostic procedures.
c4. Diagnose rheumatological illnesses.
c5. Write a professional treatment prescription.
c6. Write and evaluate medical reports.
c7. Perform and evaluate methods and tools existing in the area of Rheumatology.
c8. Deal with the possible complications of the diseases themselves or their treatments.
c9. Use technological methods to serve the professional practice in the field of Rheumatology.

Module 2: Immunology

c1. Interpret the results of diagnostic immunological procedures.
c2. Diagnose rheumatological illnesses.
c3. Understand and criticize medical reports containing immunological data

d) General and Transferable Skills

By the end of the course the student should be able to:

Module 1: Rheumatology

d1. Communicate effectively by all types of effective communication.
d2. Establish a good patient-physician relationship.
d3. Coordinate with other specialities regarding management of some patients who need this coordination.
d4. Use information technology to serve the development of professional practice
d5. Apply self-assessment methods and identify personal learning needs.
d6. Use different sources for acquiring information and knowledge.
d7. Teach others and evaluate their performance.
d8. Develop rules and indicators to assess the performance of others.
d9. Work as a part of a team and manage a group of people in a work environment.
d10. Have the ability for continuous self-learning.

Module 2: Immunology

d1. Use information technology to serve the development of professional practice
d2. Choose and use the suitable computer program packages
d3. Apply self-assessment methods and identify personal learning needs.
d4. Use different sources for acquiring information and knowledge.
d5. Work as a part of a team and manage a group of people in a work environment.
d6. Have the ability for continuous self-learning.

3. <u>Contents</u>

Module 1: Rheumatology

Topic	No. of hours	Lecture	Clinical
Introduction To Joint Anatomy And Joint Physiology	1	1	0
Public Health And Arthritis. A Growing Problem	4	2	2
Evaluation Of Rheumatology Patient:	6	2	4
Monoarticular Joint Disease	4	1	3
Polyarticular Joint Disease	4	1	3
Neck and Back Pain	5	2	3
Regional Rheumatic Pain Syndrome	5	2	3
The Fibromyalgia Syndrome	3	1	2
Rheumatoid Arthritis	13	5	8
Juvenile Idiopathic Arthritis	10	4	6
Psoriatic Arthritis	6	2	4
Ankylosing Spondylitis	6	2	4
Reactive and Enteropathic Arthritis	4	2	2
Osteoarthritis	10	4	6
GOUT	12	4	8
Other Crystal Induced Arthropathies	3	1	2
Systemic Lupus Erythematosus	12	4	8
Systemic Sclerosis	8	4	4
Idiopathic Inflammatory Myopathy	4	2	2
Metabolic Myopathies	2	1	1
Sjogren's syndrome	2	1	1
Vasculitides	5	2	3
Adult Onset Still's Disease	4	2	2
Complex Regional Pain Syndromes	7	3	4
Sarcoidosis	2	1	1
Amyloidosis	2	1	1
Osteoporosis	6	3	3
Total Hours	**150**	**60**	**90**
Total Credit Hours	**7**	**4**	**3**

Module 2: Immunology

Topic	No. of hours	Lecture	Clinical
Introduction to Immunology	18	8	10
Innate and Acquired Immune Response	25	15	10
Cells involved in Autoimmune Disease and Arthritis	20	10	10
Immunological basis of Rheumatic Diseases	42	12	30
Immunoregulatory Drugs	45	15	30
Total hours	**150**	**60**	**90**
Total Credit Hours	**7**	**4**	**3**

4. <u>Teaching and Learning Methods</u>

4-1 Lectures.

4-2 Clinical lessons.

4-3 Seminars.

4-4 Assignments for the students to empower and assess the general and transferrable skills.
4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
5.3-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	 - Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.5-OSCE	-Practical skills, intellectual skills General transferable skills
5.6 assignment	-General transferable skills, intellectual skills

Assessment Schedule

1- Assessment 1: written examination week 96
2- Assessment 2: Structured Oral Exam week 96
3- Assessment 3: OSCE week 96
4- Assessment of attendance & absenteeism throughout the course

Weighting of Assessments

Final-term written examination	50 %
Structured Oral Exam	30 %
OSCE Examination	20 %
Total	100%

Formative only assessments: attendance and absenteeism, Log book, assignment

6. List of References

6.1- Essential Books (Text Books)

1. Primer Textbook of rheumatology, 13th edition, 2008
2. Roitt Essential Immunology.
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6.2- Recommended Books

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6.3- Periodicals, Web Sites, … etc

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3. EULAR journal
4. ILAR journal.
5. http://mic.sgmjournals.org/

7. Facilities Required for Teaching and Learning

1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Usama Deif Alla

Head of the Department: Dr. Mohamed Ali Ismaeel

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Second Part in Master degree in Physical Medicine, Rheumatology and Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Medicine
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Medicine
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Second part courses of Master Degree in Physical Medicine **Code:** RHE0527-200

Total hours:

Module	Lectures	Clinical	Total hours	Credit
Physical Medicine	45	60	105	5

B. Professional Information

1. Overall Aims of Course

By the end of this course the students should be able to have the professional knowledge of diagnosis of most rheumatological diseases so as to be able to professionally protect, diagnose and advice the Rheumatology patient correctly, and should be able to have the professional knowledge of different physical modalities available for treating and palliating physically handicapped patients and to have the skills of dealing with these conditions so as to minimize the handicap and pain and maximize function of the affected organs and systems.

2. Intended Learning Outcomes of Course (ILOs)

a1. Mention the physiology of muscle and nerve and the physiology of central nervous system

a2. Mention theories, modalities and recent knowledge in the field of Physical Medicine.

a3. Mention the various physical therapeutic methods/alternatives used for rheumatological diseases

a4. Enumerate and define the different physical modalities and their uses and contraindications.

a5. Follow the scientific developments in the field of Physical Medicine.

a6. Enumerate the mutual influence between professional practice and its impacts on the environment.

a7. Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Physical Medicine.
a8. List the principles and fundamentals of quality of professional practice in the field of Physical Medicine.

b) Intellectual Skills

By the end of the course the student should have the ability to:

b1. Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
b2. Assess the function of the motor system
b3. Select from different diagnostic alternatives the ones that help reaching a final decision for Physical Medicine purposes.
b4. Link between knowledge for Professional problems' solving.
b5. Assess risk in professional practices in the field of Rheumatology.
b6. Plan to improve performance in the field of Physical Medicine., Rheumatology and Rehabilitation
b7. Analyze researches and issues related to the Physical Medicine.

c) Professional and Practical Skills

By the end of the course the student should have the ability to:

c1. Apply the basic and modern professional, clinical and medical skills in the area of Physical Medicine.
c2. Write and evaluate medical reports.
c3. Perform and evaluate methods and tools existing in the area of Physical Medicine.
c4. Use technological methods to serve the professional practice in the field of Physical Medicine.

d) General and Transferable Skills

By the end of the course the student should be able to:

d1. Establish a good patient-physician relationship.
d2. Use information technology to serve the development of professional practice
d3. Apply self-assessment methods and identify personal learning needs.
d4. Use different sources for acquiring information and knowledge.
d5. Work as a part of a team and manage a group of people in a work environment.
d6. Manage time efficiently.

3. Contents

Topic	**No. of hours**	**Lecture**	**Clinical**
Introduction To Anatomy of the Neuromuscular System	15	5	10
Therapeutic Physical Agents	15	5	10
Electrotherapy	25	10	15
Complementary and Alternative Medicine	10	5	5
Wheelchairs and assistive devices	10	5	5
Upper and lower limb prosthesis	10	5	5
Spinal Orthosis	10	5	5
Upper and lower limb orthosis	10	5	5
Total hours	**105**	**45**	**60**
Total Credit Hours	**5**	**3**	**2**

4. Teaching and Learning Methods

4-1 Lectures.
4-2 Clinical lessons.
4-3 Seminars.
4-4 Assignments for the students to empower and assess the general and transferrable skills.
4-5 Attending and participating in scientific meetings, conferences, workshops and thesis discussion to acquire the general and transferrable skills needed.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Log book	- General transferable skills
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Assessment Schedule

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Formative only assessments: attendance and absenteeism, Log book, assignment

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3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Usama Deif Alla

Head of the Department: Dr. Mohamed Ali Ismaeel

Date: 18/12/2011, Revised:1/9/2012, Revised:1/12/2013, Revised:1/12/2018

Course Specification of Second Part in Master degree in Rehabilitation

Sohag University **Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty council No. "317", decree No. "1533" dated 17/12/2018

A. Basic Information

Title: Second part courses of Master Degree in Rehabilitation
Code: RHE0527-200
Total hours:

Module	Lectures	Clinical	Total hours	Credit
Rehabilitation	60	60	120	6

B. Professional Information

1. Overall Aims of Course

By the end of this course the students should be able to have the professional knowledge of diagnosis of most rheumatological diseases so as to be able to professionally protect, diagnose and advice the Rheumatology patient correctly, and should be able to have the professional knowledge of different physical modalities available for treating and palliating physically handicapped patients and to have the skills of dealing with these conditions so as to minimize the handicap and pain and maximize function of the affected organs and systems.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course the student should be able to:

a1. Mention the nature of pain and pain control systems
a2. Mention theories, modalities and recent knowledge in the field of Rehabilitation specialty.
a3. Enumerate the definition and types of handicap.
a4. Follow the scientific developments in the field of Rehabilitation.
a5. Enumerate the mutual influence between professional practice and its impacts on the environment.
a6. De fine the principles and fundamentals of ethics and legal aspects of professional practice in the field of Rehabilitation.

a7. List the principles and fundamentals of quality of professional practice in the field of Rehabilitation.
a8. Have an idea about the basics and ethics of scientific research.
a9. List the sex, age, echological, functional and ethnic differences for different rehabilitation purposes.

b) Intellectual Skills

By the end of the course the student should have the ability to:

b1. Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
b2. Observe symptoms and signs of handicap.
b3. Assess the function of the motor system
b4. Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.
b5. Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.
b6. Select from different diagnostic alternatives the ones that help reaching a final decision for Rehabilitation program..
b7. Link between knowledge for Professional problems' solving.
b8. Conduct a research study and / or write a scientific study on a research problem.
b9. Assess risk in professional practices in the field of Rehabilitation Medicine.
b10. Plan to improve performance in the field of Rehabilitation Medicine.
b11. Identify Rehabilitational Problems and find solutions.
b12. Analyze researches and issues related to the Rehabilitation Medicine.

c) Professional and Practical Skills

By the end of the course the student should have the ability to:

c1. Apply the basic and modern professional, clinical and medical skills in the area of Rehabilitation.
c2. Perform complete history and full physical examination of rheumatic patients.
c3. Interpret the results of diagnostic procedures.
c4. Write and evaluate medical reports.
c5. Perform and evaluate methods and tools existing in the area of Rehabilitation Medicine.
c6. Deal with the possible complications of the diseases themselves or their treatments.
c7. Apply rehabilitation program for the different varieties of disabilities.
c8. Inject joints and soft tissues.
c9. Use technological methods to serve the professional practice in the field of Rehabilitation.

d) General and Transferable Skills

By the end of the course the student should be able to:

d1. Communicate effectively by all types of effective communication.
d2. Establish a good patient-physician relationship.
d3. Coordinate with other specialities regarding management of some patients who need this coordination.
d4. Use information technology to serve the development of professional practice
d5. Apply self-assessment methods and identify personal learning needs.

d6. Use different sources for acquiring information and knowledge.
d7. Teach others and evaluate their performance.
d8. Develop rules and indicators to assess the performance of others.
d9. Work as a part of a team and manage a group of people in a work environment.
d10. Manage time efficiently.
d11. Have the ability for continuous self-learning.

3. Contents

Topic	No. of hours	Lecture	Clinical
Different Types of Paralysis	12	6	6
Pain and its nature and pathways	13	6	7
Human Walking	9	4	5
Disability Determination	9	3	6
Imaging Techniques Relative to Rehabilitation	10	6	4
Manipulation, Massage and Traction	6	3	3
Injection Procedures	8	2	6
Therapeutic Exercises	8	4	4
Aquatic Rehabilitation	4	2	2
Ethical issues in Rehabilitation	2	2	0
Measuring Quality of Life in Rehabilitation Medicine	5	2	3
Gait restoration and walking Rehabilitation	6	4	2
Spasticity and movement Disorders	10	4	6
Neurogenic bladder and bowel rehabilitation	4	2	2
Stroke rehabilitation and Rehabilitation of traumatic brain injury	5	4	1
Cardiac Rehabilitation	3	2	1
Respiratory Rehabilitation	3	2	1
Burn Rehabilitation	3	2	1
Total Hours	**120**	**60**	**60**
Total Credit Hours	**6**	**4**	**2**

4. Teaching and Learning Methods

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