



كلية الطب  
وحدة ضمان الجودة



Faculty of Medicine  
Quality Assurance Unit

**Master (MSC) Degree Program and Courses  
Specifications for Physical Medicine, Rheumatology  
and Rehabilitation**

(According to currently applied **Credit points bylaws**)

***Physical Medicine,  
Rheumatology & Rehabilitation-  
Faculty of medicine-  
Assiut University  
2022-2023***

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## Master degree of Rheumatology and Rehabilitation

### A. Basic Information

- + **Program Title:** Master degree of Physical Medicine, Rheumatology and Rehabilitation
- + **Nature of the program:** Single.
- + **Responsible Department:** Department of Physical medicine, rheumatology and rehabilitation Faculty of Medicine- Assiut University.
- + **Program Academic Director (Head of the Department):**  
**Prof. Essam Ahmad Abda**
- + **Coordinator (s):**
  - Principle coordinator: Prof. Safaa Ali Mahran.
  - Assistant coordinator (s): Dr. Yasmin Saad Makarem
- + **Internal evaluators:** Prof. Naema Mohammad Mostafa
- + **External evaluator:** Prof. Ahmed Abdel-Nasser- Minia University
- + **Date of Approval by the Faculty of Medicine Council of Assiut University:** 23-9-2014
- + **Date of most recent approval of program specification by the Faculty of Medicine Council of Assiut University:** : 27-11-2022
- + **Essam Ahmad Abda Total number of courses:** 5 courses + one elective course

## B. Professional Information

### 1- Program aims

1/1. To enable candidates to teach high level of clinical skills, bedside care skills of Rheumatology and Rehabilitation & Physical medicine, in addition to update medical knowledge as well as clinical experience and competence in the same field.

1/2. Provide candidates with fundamental knowledge of Rheumatologic emergencies as regards; dealing with critical patients, prophylactic management of high risk cases cooperative management of patients in conjunction with other departments.

1/3 To introduce candidates to the basics of scientific medical research.

1/4 Enable candidates to start professional careers as specialists in Egypt but recognized abroad.

1/5 To enable candidates to understand and get the best of published scientific research and do their own.

### 2- Intended learning outcomes (ILOs) *of the whole program:*

#### 2/1 Knowledge and understanding:

- A. Explain the essential facts and principles of relevant basic sciences including, Applied Anatomy, Applied Physiology, related to Rheumatology & Rehabilitation.
- B. Mention essential facts of clinically supportive sciences including Basics of Internal Medicine & neurology and orthopedic surgery related to Rheumatology & Rehabilitation.
- C. Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of common diseases and situations related to Rheumatology & Rehabilitation.
- D. Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Rheumatology & Rehabilitation.
- E. Mention the basic ethical and medicolegal principles that should be applied in practice and relevant to Rheumatology & Rehabilitation.
- F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of in the field of practice.
- G. Mention the ethical and scientific principles of medical research methodology.

H. State the impact of common health problems in the field of Rheumatology & Rehabilitation on the society and how good clinical practice improves these problems.

### **2/2 Intellectual outcomes**

A. Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Rheumatology & Rehabilitation.

B. Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Rheumatology & Rehabilitation.

C. Design and /or present a case or review (through seminars/journal clubs) in one or more of common clinical problems relevant to the related to Rheumatology & Rehabilitation.

D. Formulate management plans and alternative decisions in different situations in the field of the Rheumatology & Rehabilitation.

### **2/3 Skills**

#### **2/3/1 Practical skills ( Patient Care)**

A. Obtain proper history and examine patients in caring and respectful behaviors.

B. Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related to Rheumatology & Rehabilitation.

C. Carry out patient management plans for common conditions related to Rheumatology & Rehabilitation.

D. Use information technology to support patient care decisions and patient education in common clinical situations related to Rheumatology & Rehabilitation.

E. Perform competently non invasive and invasive procedures considered essential for the Rheumatology & Rehabilitation.

F. Provide health care services aimed at preventing health problems related to Rheumatology & Rehabilitation.

G. Provide patient-focused care in common conditions related to Rheumatology & Rehabilitation while working with health care professionals, including those from other disciplines

H. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets ( Write a consultation note,

Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)

### 2/3/2 General skills

#### **Including:**

- Practice-based Learning and Improvement
- Interpersonal and Communication Skills
- Professionalism
- Systems-based Practice

#### **Practice-Based Learning and Improvement**

- A. Perform practice-based improvement activities using a systematic methodology and risk management activities and use logbooks).
- B. Appraises evidence from scientific studies.
- C. Conduct epidemiological Studies and surveys.
- D. Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.
- E. Facilitate learning of students and other health care professionals including their evaluation and assessment.

#### **Interpersonal and Communication Skills**

- F. Maintain therapeutic and ethically sound relationship with patients.
- G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.
- H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.
- I. Work effectively with others as a member of a health care team or other professional group

#### **Professionalism**

- J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society
- K. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices

L. Demonstrate sensitivity and responsiveness to patients’ culture, age, gender, and disabilities

**Systems-Based Practice**

M. Work effectively in relevant health care delivery settings and systems including good administrative and time management.

N. Practice cost-effective health care and resource allocation that does not compromise quality of care.

O. Assist patients in dealing with system complexities.

**3- Program Academic Reference Standards (ARS) (Annex 2)**



***Academic standards for master degree in Physical medicine, Rheumatology & Rehabilitation***

Assiut Faculty of Medicine developed master degree programs’ academic standards for different clinical specialties.

In preparing these standards, the General Academic Reference Standards for post graduate programs (GARS) were adopted. These standards set out the graduate attributes and academic characteristics that are expected to be achieved by the end of the program. These standards were approved by the Faculty Council on 17-6- 2009. These standards were revised and approved without changes by the Faculty Council on 23-9-2014. These standards were revised and reapproved recently without changes by the Faculty Council on 27-11-2022

**4- Program External References (benchmarks)**

**1. ACGME (Accreditation Council for Graduate Medical Education).**

[http://www.acgme.org/acWebsite/navPages/nav\\_Public.asp](http://www.acgme.org/acWebsite/navPages/nav_Public.asp)

**2. University of Michigan Health System, Rheumatology Clinical Fellowship Program**

<http://www.med.umich.edu/intmed/rheumatology/edu/fellowinfo.htm>

**Comparison between program and external reference**

<b>Item</b>	<b>Rheumatology program</b>	<b>University of Michigan Health System, Rheumatology Clinical Fellowship Program</b>
<b>Goals</b>	Matched	Matched
<b>ILOS</b>	Matched	Matched
<b>Duration</b>	3-5 years	3 years
<b>Requirement</b>	Different	different
<b>Program structure</b>	Different	different

## 5. Program Structure and Contents

**A. Duration of program:** 3 – 5 years

**B. Structure of the program:**

**Total contact number of credit points 180 point (20 out of them for thesis)**

**Didactic# 40 (22.2 %), practical 120 (66.7%), thesis 20 (11.1%), total 180**

**First part**

**Didactic 14 (35 %), practical 24 (60 %), elective course 2 CP (5%), total 40**

**Second part**

**Didactic 24 ( 20%), practical 96 ( 80 %), total 120**

**# Didactic (lectures, seminars, tutorial)**

**According the currently applied credit points bylaws:**

Total courses 160 credit point

Compulsory courses: 98.9%

Elective course: 2 credit point =1.25%

	<b>Credit points</b>	<b>% from total</b>
Basic science courses	24	13.3%
Humanity and social courses	2	1.1%
Speciality courses	134	74.5%
Others ( Computer, ...)		
Field training	120	66.7%
Thesis	20	11.1%

### **C. Program Time Table**

**A. Duration of program 3 years maximally 5 years divided into**

○ **Part 1: (One year)**

Program-related basic science courses and ILOs

Students are allowed to sit the exams of these courses after 12 months from applying to the MSc degree.

**One elective course** can be set during either the 1<sup>st</sup> or 2<sup>nd</sup> parts.

○ **Thesis**

For the M Sc thesis;

MSc thesis subject should be officially registered within 6 months from application to the MSc degree,

Discussion and acceptance of the thesis could be set after 12 months from registering the MSc subject;

It should be discussed and accepted before passing the second part of examination)



○ **Part 2 (2 years)**

Program –related specialized science courses and ILOs

Students are not allowed to sit the exams of these courses before 3 years from applying to the MSc degree.

The students pass if they get 50% from the written exams and 60% from oral and clinical/practical exams of each course and 60% of summation of the written exams, oral and clinical/practical exams of each course

Total degrees 1900 marks.

700 marks for first part

1200 for second part

Written exam 40% - 70%.

Clinical /practical and oral exams 30% - 60%.

**D. Curriculum Structure: (Courses): Year 1**

The first year of the fellowship is primarily for basic science related medical knowledge and Internal medicine, Neurology and Orthopedic surgery (studied in specialized courses over 12 months in collaboration with basic sciences department , Internal medicine , Neurology and Orthopedic surgery departments of Assiut Faculty of Medicine ) and a clinical year during which the fellows gain experience with a wide variety of patients in inpatient and outpatient settings, develop proficiency in the performance and appropriate utilization of various procedures. Throughout the year, emphasis is placed on developing: 1) an understanding of basic mechanisms and pathophysiology of rheumatological disease ; 2) the ability to efficiently formulate clinical assessments and therapeutic plans; 3) the ability to critically analyze the relevant medical literature; and 4) skills in communicating with nursing and medical staff as well as house staff.

The first year fellow spends the year rotating among five different services: 1) Rheumatology Wards (inpatient & outpatient) at Assiut University Hospital; 2) Rehabilitation Unit at Assiut University Hospital; 3) Neurophysiology unit at Assiut University Hospital; 4) Ultrasonography and Local injection procedures Unit, Assiut University Hospital; These rotations are briefly described below.

**Years 2 and 3**

Although the primary focus of the second and third year is the development of skills and experience in research (see below), senior fellows continue to participate in clinical activities and certain procedures. First, they maintain their longitudinal outpatient and inpatient clinic experience throughout these years. Senior fellows will also actively participate in the regular weekly scientific seminars and collaborate with those fellows in their first year. In addition, fellows

rotate through the different inpatient clinical services approximately two months on clinical rotations. This rotation complements the previous inpatient and outpatient experiences.

Approximately by the end of the first year, fellows are expected to identify a research area in which the subsequent two years will be focused. Together, the trainee and supervisors develop a project for investigation that is of interest to the trainee and within the expertise of the faculty member; in certain instances, joint mentorship provided by two faculty members within the Division, or by one divisional faculty member and a collaborator from another unit, is appropriate. By the beginning of the second year, the fellow presents a conference in which he/she synthesizes existing knowledge, presents the problem for investigation, and describes the proposed plan of investigation. The faculty members and fellows in attendance provide feedback to the fellow and supervisors about the proposed project; this process of peer review provides a useful experience for the fellow and often strengthens the experimental approach.

During the second and third years, the trainee carries out the proposed work in the clinical research facilities of the faculty mentor(s). The trainee also benefits from interactions with other trainees, technicians, and collaborating investigators. The trainee also participates in laboratory meetings and journal clubs specific to individual research groups. Presenting research findings at regional and national meetings and submitting work for publication are both important aspects of the investigative endeavor. The trainee will receive guidance and specific assistance in learning to prepare data for oral and written presentation, to prepare graphics, and to organize talks and prepare slides. Throughout the research training period, it is anticipated that the fellow will assume increasing intellectual responsibility and technical independence.

### **Research Pathway**

Selection of a research project and supervisors is subject to the approval of the Rheumatology, Rehabilitation & Physical medicine Department council approval and vice-Dean of post graduate studies of the faculty as officially regulated. Fellows may elect clinical trial, meta-Analysis/systematic Review, clinical audit or epidemiological studies -based research training pathways. For all Master degree students, a research advisory committee will be selected by the fellow based on the approved regulatory rules of the faculty council. This committee will monitor the progress of research fellows and provide advice regarding research training and career development

Courses of the program: Levels and courses of the program:

Courses and student work load list	Course Code	Credit points		
		Didactic #	training	total
<b>First Part</b>				
<b>Basic science courses</b>				
<b>1. Course 1</b> Applied Anatomy & Applied Physiology	PRR222A#	6(3+3)		6
<b>2. Course 2</b> Applied Physics and Rehabilitation & medical prosthesis.	PRR222B	2		
<b>General clinical compulsory courses (6 points)</b>				
<b>3. Course 3</b> Internal medicine & Neurology	PRR222C#	3 (2+1)		3 (2+1)
<b>4. Course 4</b> Orthopedic surgery	PRR217	3		3
<b>Elective courses*</b>		<b>2 CP</b>		
<b>Clinical training and scientific activities:</b>				
<b>Clinical training in General clinical compulsory courses (10 CP)</b>				
<b>Course 3</b> Internal medicine & Neurology	PRR222C#		7 (4+3)	7 (4+3)
<b>Course 4</b> Orthopedic surgery	PRR217		3	3
<b>Clinical training and scientific activities in Speciality course (14 CP) ( Physical Medicine, Rheumatology and Rehabilitation )</b>	PRR222D		14	14
<b>Total of the first part</b>		<b>16</b>	<b>24</b>	<b>40</b>
<b>Second Part</b>				
		<b>Speciality course 24 CP</b> <b>Speciality Clinical Work 96 CP</b>		
<b>Course 5 Physical Medicine, Rheumatology and Rehabilitation*</b>	PRR222D	24		24
<b>Training and practical activities in speciality ( 96 CP) ( Physical Medicine, Rheumatology and Rehabilitation *)</b>	PRR222D		96	96
<b>Total of the second part</b>		<b>24</b>	<b>96</b>	<b>120</b>
<b>Thesis</b>		<b>20 CP</b>		
<b>Total of the degree</b>		<b>180 CP</b>		

# Didactic (lectures, seminars, tutorial)

\* Elective courses can be taken during either the 1<sup>st</sup> or 2<sup>nd</sup> parts.

**Student work load calculation:**

Work load hours are scheduled depending on the type of activities and targeted competences and skills in different courses

**Elective Courses#:**

- Medical statistics.
- Evidence based medicine.
- Medicolegal Aspects and Ethics in Medical Practice and Scientific Research
- Quality assurance of medical education
- Quality assurance of clinical practice.
- Hospital management

# One of the above mentioned courses are prerequisites for fulfillment of the degree.

**Thesis:**

20 CP are appointed to the completion and acceptance of the thesis.

**\*Physical Medicine, Rheumatology and Rehabilitation**

Units' Titles' list	% from total Marks	Level (Year)	Core Credit points		
			Didactic	Training	Total
Unit 1	50%	1,2 &3	12	55	67
"Rheumatology & Autoimmune diseases"	50%	1,2 &3	12	55	67
Unit 2 "Physical medicinePhysical medicine Rehabilitations, Prosthesis"					
<b>Total No. of Units:</b>	<b>2</b>	<b>1,2 &amp;3</b>	<b>24</b>	<b>110</b>	<b>134</b>

\*\* Different Courses ILOs are arranged to be studied and assessed in the 1<sup>st</sup> and 2<sup>nd</sup> parts of the program as scheduled in the program time table.

## 6. Courses Contents (Annex 1)

*The competency based objectives for each course/module/rotation are specified in conjunction with teaching/training methods, requirements for achieving these objectives and assessment methods.*

See Annex 1 for detailed specifications for each course/ module

## 7-Admission requirements

### ✚ Admission Requirements (prerequisites) if any :

#### I. General Requirements:

- MBChB Degree from any Egyptian Faculties of Medicine
  - Equivalent Degree from medical schools abroad approved by the Ministry of Higher Education
  - One year appointment within responsible department (for non Assiut University based registrars)

#### II. Specific Requirements:

- Fluent in English (study language)

### VACATIONS AND STUDY LEAVE

The current departmental policy is to give working residents 2 week leave prior to first/ second part exams.

### FEES:

As regulated by the postgraduate studies rules and approved by the faculty vice dean of post graduate studies and the faculty and university councils.

## 8-Progression and completion requirements

- ✚ Examinations of the first part could be set at 12 months from registering to the MSc degree.
- ✚ Examination of the second part cannot be set before 3 years from registering to the degree.
- ✚ Discussion of the MSc thesis could be set after 1 year from officially registering the MSc subject before setting the second part exams.
- ✚ The minimum duration of the program is 3 years.

### The students are offered the degree when:

1. Passing the exams of all basic science, elective and speciality courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Completing all scheduled CP and log book (minimum 80%).
3. Discussion and acceptance of the MSc\_thesis.

**9- Program assessment methods and rules (Annex IV)**

<b>Method</b>	<b>ILOs measured</b>
<b>Written examinations:</b> <b>Structured essay questions</b> <b>Objective questions:</b> <b>MCQ</b> <b>Problem solving</b>	<b>K &amp; I</b>
<b>Clinical:</b> <b>Long/short cases</b> <b>OSCE</b>	<b>K ,I, P &amp;G skills</b>
<b>Structured oral</b>	<b>K ,I &amp;G skills</b>
<b>Logbook assessment</b>	<b>All</b>
<b>Research assignment</b>	<b>I &amp;G skills</b>

### Weighting of assessments:

Courses	Course Code	Degrees			
		Written Exam	Oral Exam*	Practical /Clinical Exam	Total
<b>First Part</b>					
<b>Basic science courses:</b>					
<b>Course 1</b> (Applied Anatomy & Applied Physiology)	PRR222A #	150 (75+75)	150 (75+75)		300  (150 +150)
<b>Course 2</b> Applied Physics and Rehabilitation & medical prosthesis	PRR222B	60	40		100
<b>General clinical courses</b>					
<b>Course 3</b> Internal medicine & Neurology	PRR222C	75 (50+25)	30 (20+10)	45 (30+15)	150 )100+50)
<b>Course 3</b> Orthopedic surgery	PRR217	75	75		150
<b>Total of the first part</b>					<b>700</b>
<b>Second Part</b>					
<b>Speciality Courses:</b>					
<b>Rheumatology , Rehabilitation &amp;Physical medicine</b>					
<b>Course 5</b> Physical Medicine, Rheumatology and Rehabilitation Paper 1: (Rheumatology and autoimmune diseases) Paper 2: (Rheumatology and autoimmune diseases) Paper 3: Physical medicinePhysical medicine and Rehabilitation and Prosthesis) Paper4: (Physical medicinePhysical medicine and Rehabilitation and Prosthesis)	PRR222D	480	360	360	1200
		120			
		120			
		120			
		120			
<b>Total of the degree</b>					<b>1900</b>
<b>Elective course</b>		<b>50</b>	<b>50</b>		<b>100</b>

\* 25% of the oral exam for assessment of logbook

**\*Physical Medicine, Rheumatology and Rehabilitation**

Units' (Module)Titles' list	% from total Marks	Degrees			
		Written Exam	Oral Exam *	Practical / Clinical Exam	Total
<b>Unit 1 "Rheumatology &amp; Autoimmune diseases"</b>	<b>50%</b>	240	180	180	600
<b>Unit 2 " Physical Medicine and Rehabilitations"</b>	<b>50%</b>	240	180	180	600
<b>Total No. of Units (Modules):</b>	<b>2</b>	480	360	360	1200

**700 marks for first part**

**1200 for second part**

**Written exam 40% (480 marks).**

**Clinical/practical and oral exams 60% (720 marks)**

**Elective course 100**

**+ Examination system:**

➤ **First part:**

- Written exam 3 hours in Applied Anatomy and Applied Physiology + Oral exam
- Written exam 2 hours in **Applied Physics and Rehabilitation & medical prosthesis** + Oral exam
- Written exam 3 hours in Internal Medicine and Neurology + Oral exam+ Clinical exam
- Written exam 3 hours in Orthopedic surgery + Oral exam

➤ **Second part:**

- Written exam four papers 3 hours for each in Physical Medicine, Rheumatology and Rehabilitation [Paper 1: (Rheumatology and autoimmune diseases); Paper 2: (Rheumatology and autoimmune diseases); Paper 3: Physical medicine Physical medicine and Rehabilitation and Prosthesis); Paper4: (Physical medicine Physical medicine and Rehabilitation and Prosthesis) ]+ Oral exam+ Clinical & Practical exam

➤ **Elective courses**

- Written exam one paper 1 hour in Elective course + Oral & Practical exam



## 10-Program evaluation

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s): According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits Questionnaires	#
Senior students	Questionnaires	#
Alumni	Questionnaires	#

**#Annex 5 contains evaluation templates and reports (Joined in the departmental folder).**

## 11-Declaration

**We certify that all of the information required to deliver this program is contained in the above specification and will be implemented.**

**All course specifications for this program are in place.**

Contributor	Name	Signature	Date
<b>Program Principle Coordinator:</b>	Prof. Safaa Ali Mahran		6/5/2022
<b>Head of the Responsible Department (Program Academic Director):</b>	Prof. Essam Ahmad Abda		6/5/2022

# Annex 1, Specifications for Courses / Modules

## Annex 1: specifications for courses/

### Course 1 Applied Anatomy and Applied physiology

#### Course 1 Unit 1 Applied Anatomy

***Name of department: Physical Medicine, Rheumatology & Rehabilitation***

***Faculty of medicine***

***Assiut University***

***2022-2023***

#### **1. Unit data**

- + Unit Title: Applied Anatomy**
- + Unit ode: PRR222A#**
- + Speciality: Rheumatology, physical medicine & rehabilitation.**
- + Number of credit point: 3 credit point, didactic 3 credit point (100%)**
- + Department (s) delivering the Unit: Department of Anatomy**
- + Coordinator (s): Staff members of Anatomy Department in conjunction with Rheumatology, Rehabilitation & Physical medicine Department as annually approved by their departments councils**
- + Date last reviewed: : 6/5/2022**
- + General requirements (prerequisites) if any :**
  - None**
- + Requirements from the students to achieve Unit ILOs are clarified in the joining log book.**

## 2. Unit Aims

The student should acquire the anatomic facts necessary for rheumatologic diseases & rehabilitation of different conditions

## 3. Unit intended learning outcomes (ILOs):

### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe anatomic details of the following : - Upper limb including (anatomy of bone, muscles, nerves and joints) -Lower limb including (anatomy of bone, muscles, nerves and joints) -Cervical and Back including (anatomy of bone, muscles, and joints) -Facial nerve and other cranial nerves -Neuroanatomy (Tractology)	-Didactic (lectures, seminars, tutorial	- Written and oral examination  - Log book
B. Illustrate the applied surface anatomy of the upper & lower limbs		

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the Anatomic facts with clinical reasoning, diagnosis and management of common diseases related to physical medicine, rheumatology & rehabilitation.	Didactic (lectures, seminars, tutorial)	Written and oral examination  Log book

### C- Practical skills (Patient Care)

Practical: 0 credit point

### D- General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of Learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	and oral	- Oral Exam - Logbook - Check list

### Professionalism

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience		- Oral Exam - Logbook

### Systems-Based Practice

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience		-360o global rating

**4. Unit contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: First Part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
- Upper limb including (anatomy of bone, muscles, nerves and joints)	A,B	A	-	A-D
-Lower limb including (anatomy of bone, muscles, nerves and joints)	A,B	A	-	A-D
-Cervical and Back including (anatomy of bone, muscles, and joints)	A	A	-	A-D
-Facial nerve and other cranial nerves	A	A	-	A-D
-Neuroanatomy (Tractology)	A	A	-	A-D

**5. Unit methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

**6. Unit methods of teaching/learning: for students with poor achievements**

1. Extra didactic (lectures, seminars, tutorial)

**7. Unit assessment methods:**

**i. Assessment tools:**

1. Written and oral examination
2. Log book

**ii. Time schedule:** At the end of the first part

**iii. Marks:** 150

## 8. List of references

### **i. Lectures notes**

- Course notes
- Staff members print out of lectures and/or CD copies

### **ii. Essential books**

- Gray's Anatomy. Gray's Anatomy for Students: 4<sup>th</sup> ed. (2019)

### **iv. Others**

None

## Course 1 Unit 2 Applied Physiology

***Name of department: Physical Medicine, Rheumatology & Rehabilitation***

***Faculty of medicine***

***Assiut University***

***2022-2023***

### 1. Unit data

- + Unit Title: Applied Physiology**
- + Unit code: PRR222A#**
- + Specialty: Rheumatology, Rehabilitation & Physical Medicine.**
- + Number of credit point: 3 credit point, didactic 3 credit point (100%)**
- + Department (s) delivering the Unit: Department of Physiology**
- + Coordinator (s): Staff members of Physiology Department in conjunction with Rheumatology, Rehabilitation & Physical medicine Department as annually approved by their departments councils**
- + Date last reviewed: : 6/5/2022**
- + General requirements (prerequisites) if any :**
  - None**
- + Requirements from the students to achieve Unit ILOs are clarified in the joining log book**



## 2. Unit Aims

The student should acquire the Physiological facts necessary for rheumatologic diseases & rehabilitation of different conditions

## 3. Unit intended learning outcomes (ILOs):

### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe Physiological details of the following : - Physiology of nerve and muscle -Effect of muscular exercise on respiration -Effect of muscular exercise on cardiovascular system -Thermostatic mechanism (body temperature and its regulation) -Receptors -Physiology of obesity -Pain sensation and its control system -Upper and lower motor neuron lesions -Spinal cord lesions -Ascending and descending tract - Stretch reflex - Skeletal muscle tone and tendon jerks	-Didactic (lectures, seminars, tutorial	- Written and oral examination  - Log book

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the physiologic facts with clinical reasoning, diagnosis and management of common diseases related to physical medicine, rheumatology & rehabilitation.	Didactic (lectures, seminars, tutorial)	Written and oral examination  Log book

### C- Practical skills (Patient Care)

Practical: 0 credit point

### D- General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ Learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	- Oral Exam - Logbook

### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A &A.B	-Observation and supervision -Written & oral communication	and oral	- Oral Exam - Logbook - Check list

### Professionalism

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
C. Demonstrate a commitment to ethical principles.	-Observation -Senior staff experience		- Oral Exam - Logbook

### Systems-Based Practice

ILOs	Methods of teaching/ learning	of	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience		-360o global rating

**4. Unit contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: First Part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
- Physiology of nerve and muscle	A	A	-	A-D
-Effect of muscular exercise on respiration	A	A	-	A-D
-Effect of muscular exercise on cardiovascular system	A	A	-	A-D
-Thermostatic mechanism (body temperature and it's regulation)	A	A	-	A-D
-Receptors	A	A	-	A-D
-Pain sensation and it's control system	A	A	-	A-D
-Upper and lower motor neuron lesions	A	A	-	A-D
-Spinal cord lesions	A	A	-	A-D
-Ascending and descending tract	A	A	-	A-D
- Stretch reflex	A	A	-	A-D
- Skeletal muscle tone and tendon jerks	A	A	-	A-D
-physiology of obesity				

**5. Unit methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

**6. Unit methods of teaching/learning: for students with poor achievements**

1. Extra didactic (lectures, seminars, tutorial)

## 7. Unit assessment methods:

### i. Assessment tools:

1. Written and oral examination
2. Log book

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 150

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

Guyton and Hall Textbook of Medical Physiology (Guyton Physiology) 14th Edition, 2022

### iv. Others

None

## 9. Signatures

Course Coordinator	
<b>Unit 1 Coordinator:</b> Course coordinators of Physical medicine ,Rheumatology and Rehabilitation and Anatomy Department	<b>Head of the Department:</b> Prof. Essam Ahmad Abda
<b>Date:</b> 6/5/2022	<b>Date:</b> 6/5/2022
<b>Unit 2 Coordinator:</b> Course coordinators of Physical medicine ,Rheumatology and Rehabilitation and Physiology Department	
<b>Date:</b> 6/5/2022	

## Course 2 *Applied Physics and Rehabilitation & medical prosthesis*

### 1. Course data

- + **Course Title:** *Applied Physics and Rehabilitation & medical prosthesis*
- + **Course code:** PRR222B
- + **Number of credit points:** 2 credit point, didactic 2 credit point (100%)
- + **Department (s) delivering the course:** Rheumatology, Rehabilitation & Physical medicine department.
- + **Coordinator (s):** Staff members of Rheumatology, Rehabilitation & Physical medicine Department as annually approved by department councils
- + **Date last reviewed:** 6-5-2022
- + **Requirements (prerequisites) if any :** None
- + **Requirements from the students to achieve course ILOs are clarified in the joining log book**

## 2. Course aims

The student should acquire the efficient knowledge & understanding of different physical modalities & their application prerequisites.

## 3. Course intended learning outcomes (ILOs):

### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe principles and application of the following physical modalities:</p> <p>I. Thermal and cold agent:</p> <p>1-Electromagnetic spectrum and Hot packs</p> <p>2-Infrared radiation</p> <p>3-Diathermy 4- cold therapy</p> <p>II. Mechanical energy:</p> <p>- Ultrasound</p> <p>- Shock wave therapy</p> <p>III. Phototherapy:</p> <p>-Laser therapy</p> <p>IV. Electrical stimulation:</p> <p>-Types of electrical stimulating current:</p> <p>1-Faradic current</p> <p>2-Diodynamic current</p> <p>3-Interferential current</p> <p>4-Transcutaneous electrical nerve stimulation (TENS)</p> <p>V. Therapeutic Exercises</p> <p>Describe principles and application of the following electro diagnostic methods:</p> <p>1- Nerve conduction study</p> <p>2- electromyography</p>	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>- Written and oral examination</p> <p>- Log book</p>

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Correlates the facts of Applied Physics and Rehabilitation &amp; medical prosthesis with clinical reasoning, diagnosis and management of common Rehabilitation conditions related to Rheumatology &amp; Rehabilitation.</p>	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>-Written and oral examination</p> <p>- Log book</p>

### C- Practical skills

Practical: 0 credit point

### D- General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Use information technology to manage information, access on-line medical information; and support their own education.	-Observation and supervision -Written & oral communication	-Log book - Oral Exam

#### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in the conditions mentioned in A.A	Observation and supervision Written & oral communication	-Log book - Oral Exam

#### Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
C. Demonstrate a commitment to ethical principles	-Observation - Senior staff experience	-Log book

#### Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating

**4. Unit contents (topic s/modules/rotation  
Course (Unit 1) Matrix**

**Time Schedule: First Part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
<b>I. Thermal and cold agents:</b>				
1-Electromagnetic spectrum	A	A	-	A-D
2-Infrared radiation	A	A	-	A-D
3-Diathermy	A	A	-	A-D
<b>II. Mechanical energy:</b>				
Ultrasound	A	A	-	A-D
<b>III. Phototherapy:</b>				
1-Ultraviolet	A	A	-	A-D
2-LASER therapy	A	A	-	A-D
<b>IV. Electrical stimulation:</b>				
-Types of electrical stimulating current:	A	A	-	A-D
1-Faradic current	A	A	-	A-D
2-Diodynamic current	A	A	-	A-D
3-Interferential current	A	A	-	A-D
4-Transcutaneous electrical nerve stimulation (TENS)	A	A	-	A-D
5- Therapeutic Exercises	A	A	-	A-D
Electrophysiological techniques	A	A	-	A-D
Nerve conduction study	A	A	-	A-D
Electromyography	A	A	-	A-D

**5. Methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Observation and supervision
3. Written & oral communication
4. Senior staff experience

**6. Methods of teaching/learning: for students with poor achievements**

1. Extra didactic (lectures, seminars, tutorial)



## 7. Assessment methods:

### i. Assessment tools:

1. Written and oral examination
2. Log book

### ii. Time schedule: At the end of the first part

### iii. Marks: 100

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

CURRENT Diagnosis & Treatment: Physical  
Medicine & Rehabilitation, 2015

### iii. Recommended books

- Physical Medicine and Rehabilitation Board  
Review, Fourth Edition. 2019
- Randall Braddom physical medicine  
&rehabilitation, 2008

### iv. Periodicals, Web sites, ... etc

- American J. of physical medicine.
- Arch physical med.&rehab.

### v. others : None

## 9. Signatures

<b>Course Coordinator:</b> <b>Prof. Safaa Ali Mahran</b>	<b>Head of the Department:</b> <b>Prof. Essam Ahmed Abda</b>
<b>Date: 6/5/2022</b>	<b>Date: 6/5/2022</b>

## Course 3 Internal Medicine & Neurology

*Name of department: of Physical Medicine, Rheumatology and Rehabilitation Faculty of medicine*

*Assiut University*

**2022-2023**

## Course 3 Unit 1 Internal Medicine

- + Unit Title: Internal Medicine**
- + Unit code: PRR222C#**
- + Number of credit points: 6 credit point, Didactic 2 credit point (33.3%), training 4 credit point (67.7%)**
- + Department (s) delivering the unit: Internal Medicine**
- + Coordinator (s): Staff members of Internal Medicine**  
**Department in conjunction with Rheumatology, Rehabilitation & Physical medicine Department as annually approved by their departments councils**
- + Date last reviewed: 6-5-2022**  
**Requirements (prerequisites) if any : None**
- + Requirements from the students to achieve course ILOs are clarified in the joining log book.it**

## 2. Course aims

- To make the students able to be familiar with the diagnosis and management of common medical problems that may be encountered with Rheumatology & rehabilitation
- To make the students able to deal with medical emergencies safely and effectively as regard their investigations and management.

## 3. Unit intended learning outcomes (ILOs):

### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <p style="margin-left: 20px;"><b>1- Cardiology.</b></p> <ul style="list-style-type: none"> <li>● Ischemic heart disease.</li> <li>● Rheumatic heart disease.</li> <li>● Rheumatic fever.</li> <li>● Systemic hypertension</li> <li>● Sub acute bacterial endocarditis</li> <li>● Heart Failure</li> <li>● Pericardial effusion</li> </ul> <p style="margin-left: 20px;"><b>2- Nephrology</b></p> <ul style="list-style-type: none"> <li>● Renal failur</li> <li>● Nephritis</li> <li>● Nephrotic syndrome</li> <li>● Acute nephritic syndrome</li> </ul> <p style="margin-left: 20px;"><b>3-Haematology</b></p> <ul style="list-style-type: none"> <li>● Lymphomas</li> <li>● Coagulation disorders</li> <li>● Collagen vascular and systemic diseases</li> <li>● Aneamias</li> </ul> <p style="margin-left: 20px;"><b>4- Endocrinology</b></p> <ul style="list-style-type: none"> <li>● Diabetes mellitus</li> <li>● Thyroid diseases</li> <li>● Adrenal gland diseases</li> <li>● Obesity</li> </ul> <p style="margin-left: 20px;"><b>5-Hepatology &amp; Gastroenterology</b></p> <ul style="list-style-type: none"> <li>● Liver cirrhosis and liver cell failure.</li> </ul>	<ul style="list-style-type: none"> <li>-Clinical round</li> <li>-Didactic (lectures, seminars, tutorial)</li> <li>-Case presentation</li> <li>-Hand on workshops,</li> <li>- Clinical rotation in the general medical emergency Unit</li> </ul>	<ul style="list-style-type: none"> <li>-Written and oral examination</li> <li>-Log book</li> </ul>

<ul style="list-style-type: none"> <li>• Autoimmune hepatitis.</li> <li>• Drug induced hepatitis</li> <li>• Peptic ulcer</li> </ul> <p><b>6-Chest diseases</b></p> <ul style="list-style-type: none"> <li>• Pulmonary embolism</li> <li>• Pleural effusion.</li> <li>• Chronic obstructive pulmonary diseases.</li> </ul>		
B. Mention the principles of basics of general medicine		
C. State update and evidence based Knowledge of Hypertension Diabetes mellitus Coagulation disorders		
D. Memorize the facts and principles of the relevant basic supportive sciences related to Internal Medicine.		
E. Mention the basic ethical and medicolegal principles relevant to the Internal Medicine.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of Internal Medicine on the society.		

### **B -Intellectual outcomes**

<b>ILOs</b>	<b>Methods of teaching/ learning</b>	<b>Methods of Evaluation</b>
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Internal Medicine.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Internal Medicine.		
C. Design and present cases, seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the Internal Medicine.		

### C -Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Obtain proper history and examine patients in caring and respectful behaviors.</p>	<ul style="list-style-type: none"> <li>-Clinical round</li> <li>-Seminars</li> <li>-Lectures</li> <li>-Tutorial</li> <li>-Case presentation</li> <li>-Hand on workshops,</li> <li>-Clinical rotation in the general medical emergency Unit</li> </ul>	<ul style="list-style-type: none"> <li>-OSCE</li> <li>-log book &amp; portfolio</li> <li>-Clinical exam in internal medicine</li> </ul>
<p>B. Order the following non invasive and invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>• Routine appropriate Lab investigations related to conditions mentioned in A.A</li> <li>• ECG</li> <li>• ESR, blood culture.</li> <li>• Echocardiography.</li> <li>• Blood picture</li> <li>• Blood chemistry</li> <li>• Metabolic profile:[i.e. serum electrolytes]</li> <li>• Chest x rays</li> <li>• Endocrinal profile</li> <li>• Rheumatoid factor, ANF, LE cells.</li> </ul>	<ul style="list-style-type: none"> <li>-Clinical round with senior staff</li> <li>-Observation Post graduate teaching</li> <li>-Hand on workshops</li> </ul>	<ul style="list-style-type: none"> <li>-OSCE</li> <li>-log book &amp; portfolio</li> <li>-Clinical exam in internal medicine</li> </ul>
<p>C. Interpret the following non invasive and invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>• Routine appropriate Lab investigations related to conditions mentioned in A.A</li> <li>• ECG</li> <li>• ESR, blood culture.</li> <li>• Echocardiography.</li> <li>• Blood picture</li> <li>• Blood chemistry</li> <li>• Metabolic profile:[i.e. serum electrolytes]</li> <li>• Chest x rays</li> <li>• Endocrinal profile</li> <li>• Rheumatoid factor, ANF, LE cells.</li> </ul>	<ul style="list-style-type: none"> <li>-Clinical round with senior staff</li> <li>-Observation Post graduate teaching</li> <li>-Hand on workshops</li> </ul>	
<p>D. Perform the following non invasive and invasive diagnostic and therapeutic procedures</p>	<ul style="list-style-type: none"> <li>-Clinical round with senior</li> </ul>	

• ECG	staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : • proper treatment for conditions mentioned in A.A	- Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Internal Medicine mentioned in A.A.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Internal Medicine.		
H. Provide health care services aimed at preventing health problems related to Internal Medicine.		
I. Provide patient-focused care in common conditions related to Internal Medicine, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

### D-General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)	- Case log - Observation and supervision - Written & oral	--Log book & portfolio -Procedure & case presentation

	communication - Journal clubs - Discussions in seminars and clinical rounds	
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	-Clinical rounds -Senior staff experience	

### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skill.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in <ul style="list-style-type: none"> <li>• Common problems of Internal Medicine.</li> </ul>		
K. Write a report <ul style="list-style-type: none"> <li>• Patients' medical reports</li> <li>• ECG</li> </ul>	-Senior staff experience	
L. Council patients and families about <ul style="list-style-type: none"> <li>• Conditions mentioned in A.A</li> </ul>	-Perform under supervision of senior staff	

### Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-OSCE examination -360o global rating

### Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey



**4. Unit contents (topics/modules/rotation)**  
**Course Matrix**

**Time Schedule: First part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
<b>1. Cardiology.</b>				
• Ischemic heart disease.	A-H	A-D	A-I	A-R
• Rheumatic heart disease.	A-H	A-D	A-I	A-R
• Rheumatic fever.	A-H	A-D	A-I	A-R
• Systemic hypertension	A-H	A-D	A-I	A-R
• Sub acute bacterial endocarditis	A-H	A-D	A-I	A-R
• Heart Failure	A-H	A-D	A-I	A-R
• Pericardial effusion	A-H	A-D	A-I	A-R
<b>2- Nephrology</b>				
• Renal failure	A-H	A-D	A-I	A-R
• Nephritis	A-H	A-D	A-I	A-R
• Nephrotic syndrome	A-H	A-D	A-I	A-R
• Acute nephritic syndrome	A-H	A-D	A-I	A-R
<b>3-Haematology</b>				
• Lymphomas	A-H	A-D	A-I	A-R
• Coagulation disorders	A-H	A-D	A-I	A-R
• Collagen vascular and systemic diseases	A-H	A-D	A-I	A-R
• Aneamias	A-H	A-D	A-I	A-R
<b>4- Endocrinology</b>				
• Diabetes mellitus	A-H	A-D	A-I	A-R
• Thyroid diseases	A-H	A-D	A-I	A-R
• Adrenal gland diseases	A-H	A-D	A-I	A-R
• Obesity	A-H	A-D	A-I	A-R
<b>5-Hepatology &amp; Gastroenterology</b>				
• Liver cirrhosis and liver cell failure.	A-H	A-D	A-I	A-R
• Autoimmune hepatitis.	A-H	A-D	A-I	A-R
• Drug induced hepatitis	A-H	A-D	A-I	A-R

• Peptic ulcer	A-H	A-D	A-I	A-R
<b>6-Chest diseases</b>				
• Pulmonary embolism	A-H	A-D	A-I	A-R
• Pleural effusion.	A-H	A-D	A-I	A-R
• Chronic obstructive pulmonary diseases.	A-H	A-D	A-I	A-R

### **5. Unit methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Seminars Clinical rotations
4. Service teaching
5. Observation
6. Post graduate teaching
7. Hand on workshops
8. Perform under supervision of senior staff
9. Simulations
10. Case presentation
11. Observation and supervision
12. Written & oral communication

### **6. Unit methods of teaching/learning: for students with poor achievements**

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

### **7. Unit assessment methods:**

#### **i. Assessment tools:**

1. Clinical examination
2. Written and oral examination
3. Check list
4. log book & portfolio
5. Procedure and case presentation
6. Objective structured clinical examination
7. Check list evaluation of live or recorded performance
8. Patient survey
9. 360o global rating

**ii. Time schedule:** At the end of the first part

**iii. Marks:** 100

## **8. List of references**

### **i. Lectures notes**

- Course notes
- Staff members print out of lectures and/or CD copies

### **ii. Essential books**

- Davidson's Principles and Practice of Medicine - 24<sup>th</sup> Edition , 2022

### **iii. Recommended books**

- Harrison's Principles of Internal Medicine, 21st Edition , 2021

### **V. others None**

## Course 3 Unit 2 Neurology

- + Unit Title: Neurology**
- + Unit code: PRR222C#**
- + Number of credit points: 4 credit point, Didactic 1 credit point (25%), training 3 credit point (75%)**
- + Department (s) delivering the unit: Neurology**
- + Coordinator (s): Staff members of Neurology**
- + Department in conjunction with Rheumatology, Rehabilitation & Physical medicine Department as annually approved by their departments councils**
- + Date last reviewed: 6-5-2022**
- Requirements (prerequisites) if any : None**
- + Requirements from the students to achieve course ILOs are clarified in the joining log book.**

## 2. Course aims

To make the students able to be familiar with the diagnosis and management of common Neurological problems that may be encountered with Rheumatology & rehabilitation

## 3. Unit intended learning outcomes (ILOs):

### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <ol style="list-style-type: none"> <li>1. Cerebrovascular stroke.</li> <li>2. Hemiplegia.</li> <li>3. Paraplegia.</li> <li>4. Conus medullaris and cauda equine lesions.</li> <li>5. Peripheral neuropathies.</li> <li>6. Muscle disease and neuromuscular disorders.</li> <li>7. Ataxia</li> <li>8. Cerebral palsy</li> </ol>	<ul style="list-style-type: none"> <li>-Clinical round</li> <li>-Didactic (lectures, seminars, tutorial)</li> <li>-Case presentation</li> <li>-Hand on workshops,</li> </ul>	<ul style="list-style-type: none"> <li>-Written and oral examination</li> <li>-Log book</li> </ul>
<p>B. State update and evidence based Knowledge of</p> <ol style="list-style-type: none"> <li>1. Cerebrovascular stroke.</li> <li>2. Hemiplegia.</li> <li>3. Paraplegia.</li> </ol>		
<p>C Memorize the facts and principles of the relevant basic supportive sciences related to Neurology.</p>		
<p>D. Mention the basic ethical and medicolegal principles relevant to the Neurology.</p>		
<p>E. Mention the basics of quality assurance to ensure good clinical care in his field</p>		
<p>F. Mention the ethical and scientific principles of medical research</p>		
<p>G. State the impact of common health problems in the field of Neurology on the society.</p>		

### B -Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Neurology.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Neurology.		
C. Design and present cases, seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the Neurology.		

### C -Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Clinical round -Seminars -Lectures -Tutorial -Case presentation -Hand on workshops,	-OSCE -log book & portfolio  -Clinical exam in internal medicine
B. Order the following noninvasive and invasive diagnostic procedures • Routine appropriate Lab investigations related to conditions mentioned in A.A	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	-OSCE -log book & portfolio  -Clinical exam in internal medicine
C. Interpret the following noninvasive and invasive diagnostic procedures • Routine appropriate Lab investigations related to conditions mentioned in A.A	-Clinical round with senior staff -Observation Post graduate	

	teaching -Hand on workshops	
D. Perform the following noninvasive and invasive diagnostic and therapeutic procedures <ul style="list-style-type: none"> <li>• Related to conditions mentioned in A.</li> </ul>	-Clinical round with senior staff -Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : <ul style="list-style-type: none"> <li>• proper treatment for conditions mentioned in A.A</li> </ul>	- Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out patient management plans for common conditions related to Neurology mentioned in A.A.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Neurology.		
J. Provide health care services aimed at preventing health problems related to Neurology.		
K. Provide patient-focused care in common conditions related to Neurology, while working with health care professionals, including those from other disciplines like: Conditions mentioned in A.A		

**D-General Skills**  
**Practice-Based Learning and Improvement**

<b>ILOs</b>	<b>Methods of teaching/ learning</b>	<b>Methods of Evaluation</b>
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	-Clinical rounds -Senior staff experience	



## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group.		
J. Present a case in <ul style="list-style-type: none"> <li>• Common problems of Neurology.</li> </ul>		
K. Write a report <ul style="list-style-type: none"> <li>• Patients' medical reports</li> </ul>	-Senior staff experience	
L. Council patients and families about <ul style="list-style-type: none"> <li>• Conditions mentioned in A.A</li> </ul>	-Perform under supervision of senior staff	

### Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-OSCE examination -360o global rating

### Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

**4. Unit contents (topics/modules/rotation)**  
**Course Matrix**

**Time Schedule: First part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
1. Cerebrovascular stroke.	A-G	A-D	A-I	A-R
2. Hemiplegia.	A-G	A-D	A-I	A-R
3. Paraplegia.	A-G	A-D	A-I	A-R
4. Conus medullaris and cauda equine lesions.	A-G	A-D	A-I	A-R
5. Peripheral neuropathies.	A-G	A-D	A-I	A-R
6. Muscle disease and neuromuscular disorders.	A-G	A-D	A-I	A-R
7. Ataxia	A-G	A-D	A-I	A-R
8. Cerebral palsy	A-G	A-D	A-I	A-R

**5. Unit methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Seminars Clinical rotations
4. Service teaching
5. Observation
6. Post graduate teaching
7. Hand on workshops
8. Perform under supervision of senior staff
9. Simulations
10. Case presentation
11. Observation and supervision
12. Written & oral communication

**6. Unit methods of teaching/learning: for students with poor achievements**

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

## 7. Unit assessment methods:

### i. Assessment tools:

1. Clinical examination
2. Written and oral examination
3. Check list
4. log book & portfolio
5. Procedure and case presentation
6. Objective structured clinical examination
7. Check list evaluation of live or recorded performance
8. Patient survey
9. 360o global rating

ii. **Time schedule:** At the end of the first part

iii. **Marks:** 50

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

- Davidson's Principles and Practice of Medicine - 24<sup>th</sup> Edition , 2022

### iii. Recommended books

- Harrison's Principles of Internal Medicine, 21<sup>st</sup> Edition , 2021
- **V. others** None

## 9. Signatures

Course Coordinator	
<b>Unit 1 Coordinator:</b> Course coordinators of Physical medicine ,Rheumatology and Rehabilitation department and Internal Medicine Department	<b>Head of the Department:</b> Essam Ahmad Abda
<b>Date:</b> 6/5/2022	
<b>Unit 2 Coordinator:</b> Course coordinators of Physical medicine ,Rheumatology and Rehabilitation department and Neurology Department	<b>Date:</b> 6/5/2022
<b>Date:</b> 6/5/2022	

## Course 4 Orthopedic Surgery

*Name of department: of Rheumatology, Rehabilitation & Physical Medicine.*

*Faculty of medicine*

*Assiut University*

*2022-2023*

### 1. Course data

- + Course Title: Orthopedic surgery
- + Course code: PRR217
- + Number of credit points: 6 credit point, Didactic 3 credit point (50%), training 3 credit point (50%)
- + Department (s) delivering the course: Orthopedic surgery
- + Coordinator (s): Staff members of Orthopedic Surgery  
Department in conjunction with Rheumatology, Rehabilitation & Physical medicine Department as annually approved by both departments councils
- + Date last reviewed: 6-5-2022
- + Requirements (prerequisites) if any : None
- + Requirements from the students to achieve course ILOs are clarified in the joining log book

## 2. Course aims

- To make the students able to deal with Orthopedic surgery emergencies safely and effectively as regard their investigations and management
- To make fellows become proficient in the interpretation of imaging studies obtained on their clinic patients.

## 3. Course intended learning outcomes (ILOs):

### A- Knowledge and understanding

Competency and Skills	Methods of teaching/ learning	<i>Methods of Evaluation</i>
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions:</p> <p>1-Complications of fractures.                      2-Peripheral nerve injuries                      3-Low back pain.                      4-Lumbar disc prolapsed.                      5-Spinal canal stenosis.                      6-Carpal and tarsal tunnel syndromes.                      7-Drop foot.                      8-Cervical spondylosis and common neck problems.                      9- Brachialgia.                      10-Osteoarthritis.                      11-Frozen shoulder.                      12-Pott's disease of thoraco-lumbar spine and pott's paraplegia.                      13-Neuropathic joints and septic arthritis.                      14-Some congenital anomalies as Talipes equinovarus, congenital dislocation of hip.</p>	<p>Clinical round                      Seminars                      Lectures                      Case presentation                      Hand on workshops,                        Clinical rotation in the orthopedic surgery</p>	<p>-Written and oral examination                        -Log book</p>

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Correlate the facts of basic orthopedic surgery which are appropriate to Rheumatology &amp; Rehabilitation in clinical reasoning, diagnosis and management of Rheumatic diseases including</p>	<p>-Didactic (lectures, seminars, tutorial)</p>	<p>-Written and oral examination                      - Log book</p>

### C- Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	Didactic (lectures, seminars, tutorial	-Assessment of practical skills -Log book Assessment of practical skills
B. Order appropriate diagnostic tests & using them in making informed diagnostic and treatment decisions by analyzing and synthesizing nformations.		
C. Interpret appropriate diagnostic tests & using them in making informed diagnostic and treatment decisions by analyzing and synthesizing information.		

### D-General Skills

#### Practice-Based Learning and Improvement

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club)	- Case log - Observation and supervision - Written & oral communication - Journal clubs - Discussions in seminars and clinical rounds	--Log book & portfolio -Procedure & case presentation
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	-Clinical rounds -Senior staff experience	

## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Work effectively with others as a member of a health care team or other professional group.		
I. Present a case in <ul style="list-style-type: none"> <li>• Common problems in orthopedic rehabilitation</li> </ul>		
J. Write a report <ul style="list-style-type: none"> <li>• Patients' medical reports</li> </ul>	-Senior staff experience	
K. Council patients and families about <ul style="list-style-type: none"> <li>• Conditions mentioned in A.A</li> </ul>	-Perform under supervision of senior staff	

## Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
L. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
M. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
N. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating



### Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
O. Work effectively in relevant health care delivery settings and systems.	Observation -Senior staff experience	-360o global rating
P. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
Q. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

**4. Course contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: First Part**

Topic	Covered ILOs			
	Knowledge	Intellectual	Practical skills	General Skills
	A	B	C	D
1-Complications of fractures.	A	A	A-C	A-Q
2-Peripheral nerve injuries	A	A	A-C	A-Q
3-Low back pain.	A	A	A-C	A-Q
4-Lumbar disc prolapsed.	A	A	A-C	A-Q
5-Spinal canal stenosis.	A	A	A-C	A-Q
6-Carpal and tarsal tunnel syndromes.	A	A	A-C	A-Q
7-Drop foot.	A	A	A-C	A-Q
8-Cervical spondylosis and common neck problems.	A	A	A-C	A-Q
9- Brachialgia.	A	A	A-C	A-Q
10-Osteoarthritis.	A	A	A-C	A-Q
11-Frozen shoulder.	A	A	A-C	A-Q
12-Pott's disease of thoraco-lumbar spine and pott's paraplegia.	A	A	A-C	A-Q
13-Neuropathic joints and septic arthritis.	A	A	A-C	A-Q
14-Some congenital anomalies as Talipes equinovarus, congenital dislocation of hip	A	A	A-C	A-Q

**5. Course methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Seminars Clinical rotations
4. Service teaching
5. Observation
6. Post graduate teaching

7. Hand on workshops
8. Perform under supervision of senior staff
9. Simulations
10. Case presentation
11. Observation and supervision
12. Written & oral communication

### **6. Course methods of teaching/learning: for students with poor achievements**

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

### **7. Course assessment methods:**

#### **i. Assessment tools:**

1. Clinical examination
2. Written and oral examination
3. Check list
4. log book & portfolio
5. Procedure and case presentation
6. Objective structured clinical examination
7. Check list evaluation of live or recorded performance
8. Patient survey
9. 360o global rating

#### **ii. Time schedule: At the end of the first part**

#### **iii. Marks: 150**

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

McRae's Orthopaedic Trauma and Emergency Fracture Management 3<sup>rd</sup> ed, 2015

### iii. Recommended books

- Alzorkany Orthopedic surgery ( Latest edition)

### iv. Periodicals, Web sites, ... etc

- J.of bone and joint surgery.
- Acta orthopedic scand.
- Clinical Orthop.&related research

### v. others

None.

## 9. Signatures

<b>Course Coordinator:</b> Course coordinators of Rheumatology, Rehabilitation and Physical medicine department and Orthopedic surgery Department	<b>Head of the Department:</b> Prof. Essam Ahmed Abda
<b>Date:</b> 6/5/2022	<b>Date:</b> 6/5/2022

## Second Part

### Course 5 Physical Medicine, Rheumatology and Rehabilitation

*Name of department: of Physical medicine, Rheumatology & Rehabilitation.*

*Faculty of medicine*

*Assiut University*

*2022-2023*

#### 1. Course data

- + Course Title: Physical medicine, Rheumatology & Rehabilitation
- + Course code: PRR222D
- + Speciality is of Rheumatology, Rehabilitation & Physical medicine
- + Number of credit points: 134, didactic 24 credit points (17.9%), practical 110 credit points (82.1%).
- + Department (s) delivering the Course: Department of Rheumatology, Rehabilitation & Physical medicine Faculty of Medicine- Assiut- EGYPT
- + Coordinator (s):
  - Unit coordinator: Prof. Eman Abbas mahmoud
  - Assistant coordinator : Prof. Naema Mohammad Mostafa
- + Date last reviewed: 6-5-2022
- + Requirements (prerequisites) if any: None
- + Requirements from the students to achieve course ILOs are clarified in the joining log book.
- + This course consists of 2 Units(Modules)
  - 1- Unit (Module)1 : Rheumatology and Autoimmune diseases
  - 2- Unit (Module)2: Physical medicinePhysical medicine and Rehabilitation and prosthesis.

## 2. Course aims

1. To acquire satisfactory level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Rheumatologic Diseases & Rehabilitation.
2. To Provide candidates with knowledge and skills in the identification and management of the different Rheumatologic emergencies
3. To gain proficiency in performance of diagnostic and therapeutic tools.

## 3. Course intended learning outcomes (ILOs):

### Unit (Module) 1: Rheumatology and Autoimmune diseases

#### A- Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the etiology, clinical picture, diagnosis and management of the following diseases and clinical conditions: :</p> <ul style="list-style-type: none"> <li>• Rheumatoid arthritis.</li> <li>• Juvenile idiopathic arthritis (JIA)</li> <li>• Sjögren's syndrome.</li> <li>• Adult onset still's disease.</li> <li>• Seronegative spondylo-arthropathies (psoriatic arthritis, ankylosing spond-ylitis, reactive and enteropathic arthritis)</li> <li>• Gouty and calcium pyrophosphate dehydrate hydroxyapatite and other crystals arthropathies</li> <li>• Osteoarthritis and other degenerative arthritis</li> <li>• Systemic lupus erythematosus.</li> <li>• Antiphospholipid syndrome.</li> <li>• Systemic sclerosis.</li> <li>• Other connective tissue disorders</li> <li>• Idiopathic inflammatory myopathies.</li> <li>• Periodic syndrome.</li> <li>• Infectious arthritis e.g. rheumatic fever, septic, viral arthritis.</li> <li>• Fibromyalgia</li> <li>• Less common arthropathies e.g. endocrinopathies.</li> <li>• Metabolic bone disease (osteoporosis, osteomalcia)</li> <li>• Some knowledge about vasculitides</li> </ul>	<p>-Didactic (lectures, seminars, tutorial)                      -Clinical rounds                      -Clinical rotations (service teaching)</p>	<p>-OSCE at the end of each year                      -log book &amp; portfolio                      - Two MCQ examination at the second year                      -Oral and written exam</p>

B. Mention the basic scientific principles of <ul style="list-style-type: none"> <li>• Rheumatoid arthritis.</li> <li>• Juvenile idiopathic arthritis (JIA)</li> <li>• Gouty and calcium pyrophosphate dehydrate hydroxyapatite and other crystals arthropathies</li> <li>• Osteoarthritis and other degenerative arthritis</li> <li>• Systemic lupus erythematosus.</li> <li>• Systemic sclerosis.</li> </ul>		
A. State update and evidence based Knowledge of <ul style="list-style-type: none"> <li>• Rheumatoid arthritis.</li> <li>• Systemic lupus erythematosus.</li> <li>• Systemic sclerosis</li> </ul>		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Rheumatology and Autoimmune diseases.		
E. Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the Rheumatology and Autoimmune diseases.		
F. Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Rheumatology and Autoimmune diseases.		
G. Mention the ethical and scientific principles of medical research methodology		
H. State the impact of common health problems in the field of Rheumatology and Autoimmune diseases on the society and how good clinical practice improve these problems.		

### B- Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Rheumatology and Autoimmune diseases.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Rheumatology and Autoimmune diseases.		
C. Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the field of Rheumatology and Autoimmune diseases.		
D-Formulate management plans and alternative decisions in different situations in the field of the Rheumatology and Autoimmune diseases.		

### C- Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Obtain proper history and examine patients in caring and respectful behaviors.</p>	<p>-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)</p>	<p>-OSCE at the end of each year -log book &amp; portfolio - One MCQ examination at the second half of the second year</p>
<p>B. Order the following non invasive and invasive diagnostic procedures</p> <ul style="list-style-type: none"> <li>• Routine appropriate Lab investigations related to conditions mentioned in A.A</li> </ul> <p>Complete blood count (CBC). -Acute phase reactant e.g. ESR, CRP. -Rheumatoid factor and anti-CCP. -ASOT. -ANA and other specific auto antibodies. -Thyroid and Parathyroid functions tests. -Serum lipid profiles and blood sugar tests. -Liver and renal function tests. -Serum electrolytes and serum alkaline phosphatase. -Complete urine and stool analysis. -Synovial fluid analysis. -Synovial biopsy interpretation -Radiography for hands, feet and any other affected joints. -Chest x-ray -Abdominal Ultrasonography -Echocardiography. -DEXA. -Eye consultation and fundus examination. -Electrophysiological studies. -Synovial fluid examinations by PLM for crystals</p>	<p>-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops</p>	<p>-Procedure presentation - Log book - Chick list</p>
<p>C. Interpret the following non invasive and Routine appropriate Lab investigations related to conditions mentioned in A.A Radiography for hands, feet and any other affected joints.</p> <p>-Chest x-ray. -DEXA Electrophysiological studies. -Synovial fluid examinations by PLM for crystals</p>	<p>-Clinical round with senior staff -Observation - Post graduate teaching -Hand on workshops</p>	
<p>D. Perform the following non invasive and invasive diagnostic</p>	<p>-Clinical round</p>	



<p>and therapeutic procedures</p> <p>Synovial fluid examinations by PLM for crystals.</p> <ul style="list-style-type: none"> <li>-Arthrocentesis and local steroid injection</li> <li>-Plasmapheresis.</li> <li>- EMG &amp; NCV.</li> <li>-Synovial fluid examinations by PLM for crystals</li> </ul>	<p>with senior staff</p> <ul style="list-style-type: none"> <li>-Observation</li> <li>Post graduate teaching</li> <li>-Hand on workshops</li> </ul>	
<p>E. Prescribe the following non invasive and invasive therapeutic procedures :</p> <ul style="list-style-type: none"> <li>- Arthrocentesis and local steroid injection</li> <li>-Plasmapheresis.</li> <li>- DMARDs, Cytotoxic drug regimen in indicated cases</li> </ul>	<ul style="list-style-type: none"> <li>-Clinical round with senior staff</li> <li>-Perform under supervision of senior staff</li> </ul>	<ul style="list-style-type: none"> <li>- Procedure presentation</li> <li>- Log book</li> <li>- Chick list</li> </ul>
<p>F. Carry out and develop patient management plans for common conditions related to Rheumatology and Autoimmune diseases.</p>	<ul style="list-style-type: none"> <li>- Clinical round with senior staff</li> <li>- Perform under supervision of senior staff</li> </ul>	
<p>G. Use information technology to support patient care decisions and patient education in common clinical situations related to Rheumatology and Autoimmune diseases</p>		
<p>H. Provide health care services aimed at preventing health problems&amp; provide management plans for the following problems :</p> <ul style="list-style-type: none"> <li>-Discharged patients from Rhuematology dept. inpatient</li> </ul>		
<p>I. Provide patient-focused care in common conditions related to Rheumatology and Autoimmune diseases, while working with health care professionals, including those from other disciplines like:</p> <ul style="list-style-type: none"> <li>- Side effects of DMARDS how to monitor toxicity</li> <li>-Awarness of adherence to medical ttt</li> </ul>		
<p>J. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.( Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records)</p>		

**D- General Skills**  
**Practice-Based Learning and Improvement**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology (share in audit and risk management activities)	<ul style="list-style-type: none"> <li>-Case log</li> <li>-Observation and supervision</li> <li>-Written &amp; oral communication</li> </ul>	<ul style="list-style-type: none"> <li>--Log book &amp; portfolio</li> <li>-Procedure &amp; case presentation</li> </ul>
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	<ul style="list-style-type: none"> <li>- Case log</li> <li>- Observation and supervision</li> <li>- Written &amp; oral communication</li> <li>- Journal clubs</li> <li>- Discussions in seminars and clinical rounds</li> </ul>	<ul style="list-style-type: none"> <li>--Log book &amp; portfolio</li> <li>-Procedure &amp; case presentation</li> </ul>
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis using information technology to manage information, access on-line medical information; and support their own education.		
E. Facilitate learning of junior students and other health care professionals including their evaluation and assessment.	<ul style="list-style-type: none"> <li>-Clinical rounds</li> <li>-Senior staff experience</li> </ul>	

## Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in <ul style="list-style-type: none"> <li>• Common problems of Rheumatology and Autoimmune diseases.</li> </ul>		
K .Write a report <ul style="list-style-type: none"> <li>• Patients' medical reports</li> <li>• Discharge card with current ttt plan</li> <li>• Follow-up sheet for rheumatology pts</li> <li>• Death report</li> </ul>	-Senior staff experience	
L. Council patients and families about different management plans for rheumatologic diseases.	-Perform under supervision of senior staff	

## Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

## Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

## Unit (Module) 2: Physical Medicine and Rehabilitation

### A-Knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
<p>A. Describe the scientific bases, clinical applications of the following</p> <p><b>Section 1: Physical modalities</b></p> <ul style="list-style-type: none"> <li>-Electrotherapy</li> <li>-Heat and cold therapy</li> <li>-LASER therapy</li> <li>-Shockwave therapy</li> <li>- Biofeedback therapy</li> <li>- Therapeutic Exercises</li> </ul> <p><b>Section 2: Electrophysiological Examination:</b></p> <ul style="list-style-type: none"> <li>- Nerve conduction studies</li> <li>- Electromyography</li> </ul>	<ul style="list-style-type: none"> <li>-Didactic (lectures, seminars, tutorial)</li> <li>-Clinical rounds</li> <li>-Clinical rotations (service teaching)</li> </ul>	<ul style="list-style-type: none"> <li>-OSCE at the end of each year</li> <li>-log book &amp; portfolio</li> <li>- Two MCQ examination at the second year</li> <li>-Oral and written exam</li> </ul>
<p>B. Mention the principles of Rehabilitation of the following conditions</p> <p><b>Section 3: rehabilitation of following conditions</b></p> <ul style="list-style-type: none"> <li>-Physiatric history and physical examination.</li> <li>-Pediatric health problems.</li> <li>-Musculoskeletal disorders of the upper limb.</li> <li>- Musculoskeletal disorders of the lower limb.</li> <li>-Common neck and back painful problems.</li> <li>-Chronic pain.</li> <li>-Sport trauma.</li> <li>-Muscle and Motor neuron diseases.</li> <li>-related orthopedic problems</li> <li>-Upper limb amputee rehabilitation.</li> <li>-Lower limb amputee rehabilitation.</li> <li>-Pulmonary rehabilitation.</li> <li>-Cardiac rehabilitation.</li> <li>-Rehabilitation of patients with rheumatic diseases.</li> <li>-Patients with neuropathies.</li> <li>- Stroke syndromes</li> <li>-Cerebral palsy.</li> <li>-Spinal cord injuries.</li> <li>-Traumatic brain injury rehabilitation</li> <li>-Burns</li> </ul>		

-spasticity -Neurogenic bladder rehabilitation - Musculoskeletal Ultrasonography in Rehabilitation Medicine <p style="text-align: center;"><b>Section 4: assistive aids</b></p> - Gait analysis -Walking aids, wheelchairs and seating systems. -Upper limb orthotic devices, -Lower limb orthoses. -Upper limb prostheses, -Lower limb prostheses. -Spinal orthoses		
C. State update and evidence based Knowledge in rehabilitation of : - orthopedic cases - nerve grafts Spinal cord injuries		
D. Memorize the facts and principles of the relevant basic and clinically supportive sciences related to Physical medicine Physical medicine and Rehabilitation and prosthesis.		
E. Mention the basic ethical and medicolegal principles relevant to the Physical medicine Physical medicine and Rehabilitation and prosthesis.		
F. Mention the basics of quality assurance to ensure good clinical care in his field		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of Physical medicine Physical medicine and Rehabilitation and prosthesis on the society.		

### B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases related to Physical medicine and Rehabilitation and prosthesis.	-Clinical rounds -Senior staff experience	-Procedure & case presentation -log book & portfolio
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations		

related to Physical medicine and Rehabilitation and prosthesis.		
C. Design and present cases, seminars in common problem.		
D-Formulate management plans and alternative decisions in different situations in the field of the Physical medicine and Rehabilitation and prosthesis.		

### C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Obtain proper history and examine patients in caring and respectful behaviors.	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - One MCQ examination at the second half of the second year
B. Order the following non invasive and invasive diagnostic procedures <ul style="list-style-type: none"> <li>• Radiography for hands, feet and any other affected joints for post traumatic injuries</li> <li>• Electrophysiological studies.</li> <li>• DEXA.</li> </ul>	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	-Procedure presentation - Log book - Chick list
C. Interpret the following non invasive and invasive diagnostic procedures <ul style="list-style-type: none"> <li>• Radiography for hands, feet and any other affected joints for post traumatic injuries</li> <li>• Electrophysiological studies.</li> <li>• DEXA</li> </ul>	-Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops	
B. Perform the following non invasive and invasive diagnostic and therapeutic procedures: <ul style="list-style-type: none"> <li>• Electrophysiological studies.</li> <li>• Arthrocentesis and local steroid injection</li> </ul>	-Clinical round with senior staff -Observation Post graduate teaching -Hand on	

	workshops	
C. Prescribe the following non invasive and invasive therapeutic procedures : <ul style="list-style-type: none"> <li>• Arthrocentesis and local steroid injection</li> <li>• <i>Rehabilitation plan with various physical modalities</i></li> <li>• <i>Medical ttt when indicated</i></li> </ul>	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Carry out and develop patient management plans for common conditions related to Physical medicine and Rehabilitation and prosthesis.	- Clinical round with senior staff - Perform under supervision of senior staff	
G. Use information technology to support patient care decisions and patient education in common clinical situations related to Physical medicine and Rehabilitation and prosthesis.		
H. Provide health care services aimed at preventing health problems related to Physical medicine and Rehabilitation and prosthesis.		
I. Provide patient-focused care in common conditions related to Physical medicine and Rehabilitation and prosthesis, while working with health care professionals, including those from other disciplines like: <ul style="list-style-type: none"> <li>• Conditions mentioned in A.A</li> </ul>		

**D-General Skills**  
**Practice-Based Learning and Improvement**

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Perform practice-based improvement activities using a systematic methodology(audit, logbook)	-Case log -Observation and supervision -Written & oral communication	--Log book & portfolio -Procedure & case presentation
B. Appraises evidence from scientific studies(journal club) * Researches and evidence based practice and internet updates about the conditions mentioned above in A.A	- Case log - Observation and supervision - Written & oral communication	--Log book & portfolio -Procedure & case presentation



	- Journal clubs - Discussions in seminars and clinical rounds	
C. Conduct epidemiological Studies and surveys.		
D. Perform data management including data entry and analysis.		
E. Facilitate learning of junior students and other health care professionals.	-Clinical rounds -Senior staff experience	

### Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Maintain therapeutic and ethically sound relationship with patients.	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	-Global rating -Procedure & case presentation -Log book & portfolio -Chick list
G. Elicit information using effective nonverbal, explanatory, questioning, and writing skills.		
H. Provide information using effective nonverbal, explanatory, questioning, and writing skills.		
I. Work effectively with others as a member of a health care team or other professional group as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in <ul style="list-style-type: none"> <li>• Common problems of Physical medicine and Rehabilitation and prosthesis</li> </ul>		
K .Write a report <ul style="list-style-type: none"> <li>• Rehabilitation program</li> <li>• Patients' medical reports</li> </ul>	-Senior staff experience	
L. Council patients and families about <ul style="list-style-type: none"> <li>• Traumatic Brain injury</li> <li>• Spinal cord injuries</li> <li>• Geriatric cases</li> </ul>	-Perform under supervision of senior staff	

### Professionalism

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society	-Observation Senior staff experience -Case taking	-Objective structured clinical examination -Patient survey
N. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices		- 360o global rating
O. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		-Objective structured clinical examination -360o global rating

### Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
P. Work effectively in relevant health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
Q. Practice cost-effective health care and resource allocation that does not compromise quality of care.		-Check list evaluation of live or recorded performance
R. Assist patients in dealing with system complexities.		-360o global rating - Patient survey

**4. Course contents (topic s/modules/rotation  
Course Matrix**

**Time Schedule: Second part**

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
<b>Unit 1 : Rheumatology and Autoimmune diseases</b>				
1-Rheumatoid arthritis	A-H	A-D	A-I	A-R
2-Juvenile idiopathic arthritis (JIA)	A-H	A-D	A-I	A-R
3-Sjögren's syndrome	A-H	A-D	A-I	A-R
4-Adult onset still's disease	A-H	A-D	A-I	A-R
5-Seronegative spondylo-arthropathies (psoriatic arthritis, ankylosing spondylitis, reactive and enteropathic arthritis)	A-H	A-D	A-I	A-R
6-Crystal arthropathy	A-H	A-D	A-I	A-R
7-Osteoarthritis and other degenerative arthritis	A-H	A-D	A-I	A-R
8-Systemic lupus erythematosus	A-H	A-D	A-I	A-R
9-Antiphospholipid syndrome	A-H	A-D	A-I	A-R
10-Systemic sclerosis	A-H	A-D	A-I	A-R
11-Other connective tissue disorders	A-H	A-D	A-I	A-R
12-Idiopathic inflammatory myopathy	A-H	A-D	A-I	A-R
13-Periodic syndrome	A-H	A-D	A-I	A-R
14-Infectious arthritis e.g. rheumatic fever, septic, viral arthritis	A-H	A-D	A-I	A-R
15-Fibromyalgia	A-H	A-D	A-I	A-R
16-Less common arthropathies e.g. endocrinopathies	A-H	A-D	A-I	A-R
17- Metabolic bone disease (osteoporosis, osteomalcia)	A-H	A-D	A-I	A-R
18- Vasculitis	A-H	A-D	A-I	A-R
19-Musculoskeletal ultrasound in Rheumatology	A-H	A-D	A-I	A-R
<b>Unit 2 Physical Medicine and Rehabilitation</b>				
<b>Section 1: Physical modalities</b>	A-H	A-D	A-I	A-R
-Electrotherapy				
-Heat and cold therapy				

<p>-LASER therapy          -Shockwave therapy          - Biofeedback therapy          - Therapeutic Exercises</p> <p><b>Section 2: Electrophysiological Examination:</b></p> <p>- Nerve conduction studies          - Electromyography</p> <p><b>Section 3: Rehabilitation of following conditions</b></p> <p>-Physiatric history and physical examination.          -Pediatric health problems.          -Musculoskeletal disorders of the upper limb.          - Musculoskeletal disorders of the lower limb.          -Common neck and back painful problems.          -Chronic pain.</p>	<p>A-H</p> <p>A-H</p>	<p>A-D</p> <p>A-D</p>	<p>A-I</p> <p>A-I</p>	<p>A-R</p> <p>A-R</p>
<p>-Sport trauma.          -Muscle and Motor neuron diseases.          -related orthopedic problems          -Upper limb amputee rehabilitation.          -Lower limb amputee rehabilitation.          -Pulmonary rehabilitation.          -Cardiac rehabilitation.          -Rehabilitation of patients with rheumatic diseases.          -Patients with neuropathies.          -Traumatic brain injury rehabilitation          -Stroke syndromes          -Cerebral palsy.          -Spinal cord injuries.          -Burns.          -Geriatric Problems          -spasticity          -Neurogenic bladder rehabilitation          -Musculoskeletal Ultrasonography          In Rehab. Medicine</p>				

<b>Section 4: assistive aids</b>	A-H	A-D	A-I	A-R
<ul style="list-style-type: none"> <li>- Gait analysis</li> <li>-Walking aids, wheelchairs and seating systems.</li> <li>-Upper limb orthotic devices,</li> <li>-Lower limb orthoses.</li> <li>-Upper limb prostheses,</li> <li>-Lower limb prostheses.</li> <li>-Spinal orthoses.</li> </ul>				

**5. Course methods of teaching/learning:**

1. Didactic (lectures, seminars, tutorial)
2. Clinical rounds
3. Clinical rotations
4. Service teaching
5. Post graduate teaching
6. Hand on workshops
7. Perform under supervision of senior staff
8. Simulations
9. Senior staff experience
10. Case presentation
11. Case log
12. Outpatient
13. Inpatient
14. Direct observation
15. Journal club,
16. Critically appraised topic
17. Educational prescription
18. Observation and supervision
19. Written & oral communications

**6. Course methods of teaching/learning: for students with poor achievements**

1. Extra Didactic (lectures, seminars, tutorial) according to their needs
2. Extra training according to their needs

## 7. Course assessment methods:

### i. Assessment tools:

1. Oral examination
2. Clinical examination
3. Written examination
4. MCQ examination
5. Objective structure clinical examination (OSCE)
6. Procedure & case Log b& Portfolios
7. Simulation
8. Record review (report)
9. Patient survey
- 10.360o global rating
11. Check list evaluation of live or recorded performance

**ii. Time schedule:** At the end of the second part

**iii. Marks:** 1200 mark

## 8. List of references

### i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies

### ii. Essential books

- Braddom's Physical Medicine and Rehabilitation, 6<sup>th</sup> edition  
2020
- Kelly's Textbook of Rheumatology, 9<sup>th</sup>, edition, 2021.

- Primer's of Rheumatic diseases, 13<sup>th</sup> edition, 2008.
- Current Diagnosis and Treatment Rheumatology 4<sup>th</sup> ed.,2021
- Current Diagnosis and Treatment Physical Medicine &Rehabilitation 4<sup>th</sup> ed.,2015
- 

**iii. Recommended book**

EULAR Textbook on Rheumatic diseases, 3<sup>rd</sup> ed , 2018

Physical Medicine &Rehabilitation Board Review, 4<sup>th</sup> ed ,  
2015

**iv. Periodicals, Web sites, ... etc**

- American Journal of Physical Medicine and Rehabilitation
- Annals of Rheumatic diseases.
- Egyptian Journal of Rheumatology & Rehabilitation
  - The Egyptian Rheumatologist journal

**v. Others**

**9. Signatures**

<b>Course Coordinator:</b> Prof. Safaa Ali Mahran	<b>Head of the Department:</b> <b>Prof. Essam Ahmad Abda</b>
<b>Date: ...</b>	<b>Date: .....</b>

## **ANNEX 2**

# **Program Academic Reference Standards (ARS)**

### ***1- Graduate attributes for master degree in Rheumatology and Rehabilitation***

*The Graduate (after residence training and master degree years of study) must:*

**1-** Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in Rheumatology and Rehabilitation.

**2-** Appraise and utilise scientific knowledge to continuously update and improve clinical practice in related Rheumatology and Rehabilitation.

**3-** Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in the field of Rheumatology and Rehabilitation.

**4-** Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and updated information.

**5-** Identify and share to solve health problems in Rheumatology and Rehabilitation..

**6-** Acquire all competencies –including the use of recent technologies– that enable him to provide safe, scientific, and ethical and evidence based clinical care including update use of new technology in Rheumatology and Rehabilitation.

**7-** Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.

**8-** Function as supervisor, and trainer in relation to colleagues, medical students and other health professions.

**9-** Acquire decision making capabilities in different situations related to Rheumatology and Rehabilitation.

**10-** Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care



providers and managers, practice of cost-effective health care, health economics, and resource allocations.

**11-** Be aware of public health and health policy issues and share in system-based improvement of health care.

**12-** Show appropriate attitudes and professionalism.

**13-** Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Rheumatology and Rehabilitation or one of its subspecialties.

## ***2- Competency based Standards for clinical master degree graduates***

### **2.1- Knowledge and understanding**

***By the end of the program, the graduate should demonstrate satisfactory knowledge and understanding of***

**2-1-A-** Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.

**2-1-B-** The relation between good clinical care of common health problems in the Rheumatology and Rehabilitation and the welfare of society.

**2-1-C-** Up to date and recent developments in common problems related to Rheumatology and Rehabilitation.

**2-1-D-** Ethical and medicolegal principles relevant to practice in Rheumatology and Rehabilitation.

**2-1-E** -Quality assurance principles related to the good medical practice in Rheumatology and Rehabilitation.

**2-1-F-** Ethical and scientific basics of medical research.

### **2.2- Intellectual skills:**

***By the end of the program, the graduate should be able to demonstrate the following:***

**2-2-A-** Correlation of different relevant sciences in the problem solving and management of common diseases of Rheumatology and Rehabilitation.

**2-2-B-** Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Rheumatology and Rehabilitation .

**2.2- C-** Demonstrating systematic approach in studying clinical problems relevant to Rheumatology and Rehabilitation.

**2-2-D-** Making alternative decisions in different situations in Rheumatology and Rehabilitation.

### **2.3- Clinical skills**

***By the end of the program, the graduate should be able to***

**2-3-A** - Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

**2-3-B-** Demonstrate patient care skills relevant to Rheumatology and Rehabilitation for patients with common diseases and problems.

2-3- C- Write and evaluate reports for situations related to the field of Rheumatology and Rehabilitation.

**2.4- General skills**

*By the end of the program, the graduate should be able to*

***+ Competency-based outcomes for Practice-based Learning and Improvement***

2-4-A- Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence,, improvements in patient care and risk management.

2-4-B- Use all information sources and technology to improve his practice.

2-4-C- Demonstrate skills of teaching and evaluating others.

***+ Competency-based objectives for Interpersonal and Communication Skills***

2-4-D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.

***+ Competency-based objectives for Professionalism***

2-4-E- Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.

***+ Competency-based objectives for Systems-based Practice***

2-4-F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.

2-4-g- Demonstrate skills of effective time management.

2-4-H- Demonstrate skills of self and continuous learning.

# Annex 3, Methods of teaching/learning

***Annex 3, Methods of teaching/learning***

	<b>Patient care</b>	<b>Medical knowledge</b>	<b>Practice-based learning/Improvement</b>	<b>Interpersonal and communication skills</b>	<b>Professionalism</b>	<b>Systems-based practice</b>
Didactic (lectures, seminars, tutorial )	X	X		X	X	X
journal club,	X	X	X			
Educational prescription	X	X	X	X	X	X
Present a case (true or simulated) in a grand round	X	X	X	X	X	
Observation and supervision	X		X	X	X	X
conferences		X	X	X		X
Written assignments	X	X	X	X	X	X
Oral assignments	X	X	X	X	X	X

### **Teaching methods for knowledge**

- ❖ Didactic (lectures, seminars, tutorial )
- ❖ journal club
- ❖ Critically appraised topic
- ❖ Educational prescription (a structured technique for following up on clinical questions that arise during rounds and other venues).
- ❖ Present a case (true or simulated) in a grand round
- ❖ Others

### **Teaching methods for patient care**

- ❖ Observation and supervision /Completed tasks procedure/case logs
- ❖ On-the-job” training without structured teaching is not sufficient for this skill (checklists).
- ❖ Simulation is increasingly used as an effective method for skill/teamwork training.

### **Teaching methods for other skills**

- ❖ Written communication (e.g., orders, progress note, transfer note, discharge summary, operative reports, and diagnostic reports).
- ❖ Oral communication (e.g., presentations, transfer of care, interactions with patients, families, colleagues, members of the health care team) and/or non verbal skills (e.g., listening, team skills)
- ❖ Professionalism, including medical ethics, may be included as a theme throughout the program curriculum that includes both didactic and experiential components (e.g., may be integrated into already existing small group discussions of vignettes or case studies and role plays, computer-based modules) and may be modeled by the faculty in clinical practice and discussed with the resident as issues arise during their clinical practice.

# Annex 4, Assessment methods

**Annex 4, ILOs evaluation methods for Master Degree students.**

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/Improvement	Interpersonal and communication skills	Professionalism	Systems-based practice
Record review	X	X	X		X	X	X
Checklist	X				X		
Global rating	X	X	X	X	X	X	X
Simulations	X	X	X	X	X	X	
Portfolios	X	X	X	X	X		
Standardized oral examination	X	X	X	X	X		X
Written examination	X	X	X	X			X
Procedure/case log	X	X					
OSCE	X	X	X	X	X	X	X



#### *Annex 4, Glossary of Master Degree doctors assessment methods*

- ❖ Record Review – Abstraction of information from patient records, such as medications or tests ordered and comparison of findings against accepted patient care standards.
- ❖ Chart Stimulated Recall – Uses the MSc doctor’s patient records in an oral examination to assess clinical decision-making.
- ❖ Mini clinical evaluation: Evaluation of Live/Recorded Performance (single event) – A single resident interaction with a patient is evaluated using a checklist. The encounter may be videotaped for later evaluation.
- ❖ Standardized Patients (SP) – Simulated patients are trained to respond in a manner similar to real patients. The standardized patient can be trained to rate MSc doctor’s performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MSc doctor’s performance.
- ❖ Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MSc doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MSc doctors.
- ❖ Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by a MSc doctors.
- ❖ Case /problems – assess use of knowledge in diagnosing or treating patients or evaluate procedural skills.
- ❖ Models: are simulations using mannequins or various anatomic structures to assess procedural skills and interpret clinical findings. Both are useful to assess practice performance and provide constructive feedback.

- ❖ 360 Global Rating Evaluations – MSc doctors, faculty, nurses, clerks, and other clinical staff evaluate MSc doctors from different perspectives using similar rating forms.
- ❖ Portfolios – A portfolio is a set of project reports that are prepared by the MSc doctors to document projects completed during the MSc study years. For each type of project standards of performance are set. Example projects are summarizing the research literature for selecting a treatment option, implementing a quality improvement program, revising a medical student clerkship elective, and creating a computer program to track patient care and outcomes.
- ❖ Examination MCQ – A standardized examination using multiple-choice questions (MCQ). The in-training examination and written board examinations are examples.
- ❖ Examination Oral – Uses structured realistic cases and patient case protocols in an oral examination to assess clinical decision-making.
- ❖ Procedure or Case Logs – MSc doctors prepare summaries of clinical experiences including clinical data. Logs are useful to document educational experiences and deficiencies.
- ❖ PSQs – Patients fill out Patient Survey questionnaires (PSQs) evaluating the quality of care provided by MSc doctors.

# Annex 5, Program evaluation tools

By whom	Method	sample
Quality Assurance Unit	Reports Field visits	#
External Evaluator (s):According to department council External Examiner (s): According to department council	Reports Field visits	#
Stakeholders	Reports Field visits questionnaires	#
Senior students	questionnaires	#
Alumni	questionnaires	#

# Annex 6, Program Correlations:

مصفوفة توافق المعايير القومية القياسية العامة لبرامج الماجستير مع المعايير الأكاديمية المعتمدة من كلية الطب – جامعة أسيوط لدرجة الماجستير في الطب الطبيعي والروماتيزم والتأهيل

## I- General Academic Reference Standards (GARS) versus Program ARS

### 1- Graduate attributes

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
1- Have the capability to be a scholar, understanding and applying basics, methods and tools of scientific research and clinical audit in Rheumatology and Rehabilitation.	1- إجابة تطبيق أساسيات و منهجيات البحث العلمي واستخدام أدواته المختلفة
2- Appraise and utilise scientific knowledge to continuously update and improve clinical practice in Rheumatology and Rehabilitation.	2-تطبيق المنهج التحليلي واستخدامه في مجال التخصص
3- Acquire sufficient medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care in Rheumatology and Rehabilitation.	3-تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة في ممارسته المهنية
4- Provide patient care that is appropriate, effective and compassionate for dealing with common health problems and health promotion using evidence-based and update information.	4-إظهار وعيا بالمشاكل الجارية و الرؤى الحديثة في مجال التخصص
5- Identify and share to solve health problems in Rheumatology and Rehabilitation.	5-تحديد المشكلات المهنية و إيجاد حلولاً لها
6- Acquire all competencies that enable him to provide safe, scientific, ethical and evidence based clinical care including update use of new technology in Rheumatology and Rehabilitation.	6-إتقان نطاق مناسب من المهارات المهنية المتخصصة، واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية
7- Demonstrate interpersonal and communication skills that ensure effective information exchange with individual patients and their families and teamwork with other health professions, the scientific community and the public.	7-التواصل بفاعلية و القدرة على قيادة فرق العمل
8- Function as supervisor, and trainer in relation to colleagues, medical students and other	

health professions.	
9- Acquire decision making capabilities in different situations related to Rheumatology and Rehabilitation.	8- اتخاذ القرار في سياقات مهنية مختلفة
10- Show responsiveness to the larger context of the health care system, including e.g. the organisation of health care, partnership with health care providers and managers, practice of cost-effective health care, health economics, and resource allocations.	9- توظيف الموارد المتاحة بما يحقق أعلى استفادة و الحفاظ عليها
11- Be aware of public health and health policy issues and share in system-based improvement of health care.	10- إظهار الوعي بدوره في تنمية المجتمع و الحفاظ على البيئة في ضوء المتغيرات العالمية و الإقليمية
12- Show appropriate attitudes and professionalism.	11- التصرف بما يعكس الالتزام بالنزاهة و المصداقية و الالتزام بقواعد المهنة
13- Demonstrate skills of lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages in Rheumatology and Rehabilitation or one of its subspecialties.	12- تنمية ذاته أكاديميا و مهنيا و قادرا علي التعلم المستمر

## 2. Academic standard

Faculty ARS	NAQAAE General ARS for Postgraduate Programs
2.1.A -Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problems and topics.	1-2-أ-النظريات و الأساسيات المتعلقة بمجال التعلم وكذا في المجالات ذات العلاقة.
2.1.B- The relation between good clinical care of common health problems in Rheumatology and Rehabilitation and the welfare of society.	1-2-ب-التأثير المتبادل بين الممارسة المهنية وانعكاسها علي البيئة.
2.1. C- Up to date and recent developments in common problems related to Rheumatology and Rehabilitation..	1-2-ج-التطورات العلمية في مجال التخصص.
2.1. D- Ethical and medicolegal principles relevant to practice in the Rheumatology and Rehabilitation.	1-2-د-المبادئ الأخلاقية و القانونية للممارسة المهنية في مجال التخصص.
2.1. E-Quality assurance principles related to the good medical practice in Rheumatology and Rehabilitation.	1-2-هـ- مبادئ و أساسيات الجودة في الممارسة المهنية في مجال التخصص
2.1. F- Ethical and scientific basics of medical research.	1-2-و- أساسيات وأخلاقيات البحث العلمي
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Rheumatology and Rehabilitation/  2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Rheumatology and Rehabilitation.	2-2-أ- تحليل و تقييم المعلومات في مجال التخصص والقياس عليها لحل المشاكل



2.2. B- Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Rheumatology and Rehabilitation.	2-2-ب- حل المشاكل المتخصصة مع عدم توافر بعض المعطيات
2.2. A-Correlation of different relevant sciences in the problem solving and management of common diseases of Rheumatology and Rehabilitation.	2-2-ج- الربط بين المعارف المختلفة لحل المشاكل المهنية
2.2. C- Demonstrating systematic approach in studying clinical problems relevant to the Rheumatology and Rehabilitation.	2-2-د- إجراء دراسة بحثية و /أو كتابة دراسة علمية منهجية حول مشكلة بحثية
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-2-هـ- تقييم المخاطر في الممارسات المهنية في مجال التخصص
2.4.A-Demonstrate practice-based learning and Improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-2-و- التخطيط لتطوير الأداء في مجال التخصص
2.2.D- Making alternative decisions in different situations in the field of Rheumatology and Rehabilitation..	2-2-ز- اتخاذ القرارات المهنية في سياقات مهنية متنوعة
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.	2-3-أ- إتقان المهارات المهنية الأساسية و الحديثة في مجال التخصص
2.3.B- Demonstrate patient care	

skills relevant to Rheumatology and Rehabilitation for patients with common diseases and problems.	
2.3.C- Write and evaluate reports for Situation related to Rheumatology and Rehabilitation..	2-3-ب- كتابة و تقييم التقارير المهنية
2.3.A- provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. 2.3.B- Demonstrate patient care skills relevant to that speciality for patients with common diseases and problems.	2-3-ج- تقييم الطرق و الأدوات القائمة في مجال التخصص
2.4.D- Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-4-أ- التواصل الفعال بأنواعه المختلفة
2.4.A-Demonstrate practice-based learning and improvement skills investigation that involves and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management 2.4.B- Use all information sources and technology to improve his practice.	2-4-ب- استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management	2-4-ج- التقييم الذاتي وتحديد احتياجاته التعليمية الشخصية

<p>2.4.B- Use all information sources and technology to improve his practice.</p> <p>2.4.E-Demonstrate professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	
<p>2.4.A-Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, , improvements in patient care and risk management.</p>	<p>2-4-2-د- استخدام المصادر المختلفة للحصول على المعلومات و المعارف</p>
<p>2.4. C- Demonstrate skills of teaching and evaluating others.</p>	<p>2-4-2-هـ- وضع قواعد ومؤشرات تقييم أداء الآخرين</p>
<p>2.4. F- Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.</p>	<p>2-4-2-و- العمل في فريق ، وقيادة فرق في سياقات مهنية مختلفة</p>
<p>2.4.G- Demonstrate skills of effective time management.</p>	<p>2-4-2-ز- إدارة الوقت بكفاءة</p>
<p>2.4.H- Demonstrate skills of self and continuous learning.</p>	<p>2-4-2-ح- التعلم الذاتي و المستمر</p>

*Comparison between ARS and ILOS for master degree in  
Rheumatology and Rehabilitation*

<b>(ARS)</b>	<b>(ILOS)</b>
<p><b><u>2-1- Knowledge and understanding</u></b></p> <p><b>2-1-A-</b> Established basic, biomedical, clinical, epidemiological and behavioral sciences related conditions, problem and topics.</p>	<p><b><u>2-1- Knowledge and understanding</u></b></p> <p><b>2-1-A-</b> Explain the essential facts and principles of relevant basic sciences including, Applied Anatomy, Applied Physiology, Applied Physics and Rehabilitation &amp; medical prosthesis related to Rheumatology and Rehabilitation.</p> <p><b>2-1-B-</b> Mention <u>essential facts</u> of clinically supportive sciences including Basics of internal Medicine &amp; neurology and Orthopedic surgery related to Rheumatology and Rehabilitation.</p> <p><b>2-1-C-</b> Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Rheumatology and Rehabilitation.</p>
<p><b>2-1-B</b> The relation between good clinical care of common health problem in the Rheumatology and Rehabilitation and the welfare of society.</p>	<p><b>2-1-H-</b> State the impact of common health problems in the field of Rheumatology and Rehabilitation on the society and how good clinical practice improve these problems.</p>
<p><b>2-1-C-</b> Up to date and recent developments in common problems related to the field of Rheumatology and Rehabilitation.</p>	<p><b>2-1-C-</b> Demonstrate sufficient knowledge of etiology, clinical picture, diagnosis, prevention and treatment of the common diseases and situations related to Rheumatology and Rehabilitation.</p> <p><b>2-1-D-</b> Give the recent and update developments in the pathogenesis, diagnosis, prevention and treatment of common diseases related to Rheumatology and Rehabilitation.</p>
<p><b>2-1-D-</b> Ethical and medicolegal Principles relevant to practice in the Rheumatology and Rehabilitation field.</p>	<p><b>2-1-E-</b> Mention the basic ethical and medicolegal principles that should be applied in practice and are relevant to the field of Rheumatology and Rehabilitation.</p>

<p><b>2-1-E-</b>Quality assurance principles related to the good medical practice in the Rheumatology and Rehabilitation field.</p>	<p><b>2-1-F-</b> Mention the basics and standards of quality assurance to ensure good clinical practice in the field of Rheumatology and Rehabilitation.</p>
<p><b>2-1-F-</b> Ethical and scientific basics of medical research.</p>	<p><b>2-1-G-</b> Mention the ethical and scientific principles of medical research methodology.</p>
<p><b><u>2-2- Intellectual skills:</u></b> <b>2-2-A-</b>Correlation of different relevant sciences in the problem solving and management of common diseases of the Rheumatology and Rehabilitation.</p>	<p><b><u>2-2- Intellectual skills:</u></b> <b>2-2-A-</b> Correlate the facts of relevant basic and clinically supportive sciences with clinical reasoning, diagnosis and management of common diseases of the Rheumatology and Rehabilitation.</p>
<p><b>2-2-B-</b>Problem solving skills based on data analysis and evaluation (even in the absence of some) for common clinical situations related to Rheumatology and Rehabilitation.</p>	<p><b>2-2-B-</b> Demonstrate an investigatory and analytic thinking approach (problem solving) to common clinical situations related to Rheumatology and Rehabilitation.</p>
<p><b>2-2-C-</b> Demonstrating systematic approach in studying clinical problems relevant to the Rheumatology and Rehabilitation field.</p>	<p><b>2-2-C-</b> Design and /or present a case or review (through seminars/journal clubs.) in one or more of common clinical problems relevant to the Rheumatology and Rehabilitation field.</p>
<p><b>2-2-D</b> Making alternative decisions in different situations in the field of the R Rheumatology and Rehabilitation.</p>	<p><b>2-2-D-</b> Formulate management plans and alternative decisions in different situations in the field of the Rheumatology and Rehabilitation.</p>

<b>Continuous</b> <b>(ARS)</b>	<b>continuous</b> <b>(ILOs)</b>
<p><b><u>2-3- Clinical skills:</u></b></p> <p><b>2-3-A-</b> Provide patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.</p> <p><b>2-3-B-</b> Demonstrate patient care skills relevant to that Rheumatology and Rehabilitation for patients with common diseases and problems.</p>	<p><b><u>2/3/1/Practical skills (Patient Care :)</u></b></p> <p><b>2-3-1-A-</b> Obtain proper history and examine patients in caring and respectful behaviors.</p> <p><b>2-3-1-B-</b> Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence, and clinical judgment for common conditions related Rheumatology and Rehabilitation.</p> <p><b>2-3-1-C-</b> Carry out patient management plans for common conditions related to Rheumatology and Rehabilitation.</p> <p><b>2-3-1-D-</b> Use information technology to support patient care decisions and patient education in common clinical situations related to Rheumatology and Rehabilitation.</p> <p><b>2-3-1-E-</b> Perform competently non invasive and invasive procedures considered essential for Rheumatology and Rehabilitation.</p> <p><b>2-3-1-F-</b> Provide health care services aimed at preventing health problems related to Rheumatology and Rehabilitation.</p> <p><b>2-3-1-G-</b> Provide patient-focused care in common conditions related to Rheumatology and Rehabilitation while working with health care professionals, including those from other disciplines.</p>
<p><b>2-3-C-</b> Write and evaluate reports for situations related to the field of Rheumatology and Rehabilitation.</p>	<p><b>-3-1-H</b> Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and maintaining medical records).</p>

<p><b><u>2-4- General skills</u></b></p> <p><b>2-4-A-</b> Demonstrate practice-based learning and improvement skills that involves investigation and evaluation of their own patient care, appraisal and assimilation of scientific evidence, improvements in patient care and risk management</p>	<p><b><u>2/3/2 General skills</u></b></p> <p><b>2-3-2-A-</b> Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p> <p><b>2-3-2-B-</b> Appraises evidence from scientific studies.</p> <p><b>2-3-2-C-</b> Conduct epidemiological studies and surveys.</p>
<p><b>2-4-B-</b> Use all information sources and technology to improve his practice.</p>	<p><b>2-3-2-C-</b> Conduct epidemiological studies and surveys.</p> <p><b>2-3-2-D.</b> Perform data management including data entry and analysis and using information technology to manage information, access on-line medical information; and support their own education.</p>
<p><b>2-4-C-</b> Demonstrate skills of teaching and evaluating others.</p>	<p><b>2-3-2-E-</b> Facilitate learning of students other health care professionals including their evaluation and assessment.</p>
<p><b>2-4-D-</b> Demonstrate interpersonal and communication skills that result in effective information exchange and teaming with patients, their families, and other health professionals.</p>	<p><b>2-3-2-F-</b> Maintain therapeutic and ethically sound relationship with patients.</p> <p><b>2-3-2-G-</b> Elicit information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p><b>2-3-2-H-</b> Provide information using effective nonverbal, explanatory, questioning, and writing skills.</p> <p><b>2-3-2-I-</b> Work effectively with others as a member of a health care team or other professional group.</p>
<p><b>2-4-E-</b> Demonstrate professionalism behaviors, as manifested through a commitment to carrying out professional</p>	<p><b>2-3-2-J-</b> Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.</p>

<p>responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.</p>	<p><b>2-3-2-K-</b> Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, business practices.</p> <p><b>2-3-2-L-</b> Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.</p>
<p><b>2-4-F-</b> Demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively use system resources to provide care that is of optimal value.</p>	<p><b>2-3-2-M-</b> Work effectively in relevant health care delivery settings and systems including good administrative and time management</p> <p><b>2-3-2-N-</b> Practice cost-effective health care and resource allocation that does not compromise quality of care.</p> <p><b>2-3-2-O-</b> Assist patients in dealing with system complexities.</p>
<p><b>2-4-G-</b> Demonstrate skills of effective time management</p>	<p><b>2-3-2-M-</b> Work effectively in relevant health care delivery settings and systems including good administrative and time management</p>
<p><b>2-4-H-</b> Demonstrate skills of self and continuous learning.</p>	<p><b>2-3-2-A-</b> Perform practice-based improvement activities using a systematic methodology (share in audits and risk management activities and use logbooks).</p>



**III-Program matrix  
Knowledge and Understanding**

Course	Program covered ILOs							
	2/1/A	2/1/B	2/1/C	2/1/D	2/1/E	2/1/F	2/1/G	2/1/H
Course 1 : Applied Anatomy & Applied Physiology	✓							
Course 2 : Applied Physics and Rehabilitation & medical prosthesis.	✓							
Course 3 : Internal medicine & Neurology	✓	✓	✓	✓	✓	✓	✓	✓
Course 4 : Orthopedic surgery		✓	✓					
Course 5 : Rheumatology & rehabilitation & physical medicine	✓	✓	✓	✓	✓	✓	✓	✓

## Intellectual

Course	Program covered ILOs			
	2/2/A	2/2/B	2/2/C	2/2/D
Course 1 : Applied Anatomy & Applied Physiology	√			
Course 2: Applied Physics and Rehabilitation & medical prosthesis.	√			
Course 3 : Internal medicine & Neurology	√	√	√	√
Course 4 : Orthopedic surgery	√			
Course 5 : Rheumatology & rehabilitation & physical medicine	√	√	√	√

### Practical Skills (Patient Care)

Course	Program covered ILOs							
	2/3/1/A	2/3/1/B	2/3/1/C	2/3/1/D	2/3/1/E	2/3/1/F	2/3/1/G	2/3/1/H
Course 1 : Applied Anatomy & Applied Physiology								
Course 2: Applied Physics and Rehabilitation & medical prosthesis.								
Course 3 : Internal medicine & Neurology	✓	✓	✓	✓	✓	✓	✓	
Course 4 : Orthopedic surgery	✓	✓						
Course 5 : Rheumatology & rehabilitation & physical medicine	✓	✓	✓	✓	✓	✓	✓	✓

## General Skills

Course	Program covered ILOs							
	2/3/2/A	2/3/2/B	2/3/2/C	2/3/2/D	2/3/2/E	2/3/2/F	2/3/2/G	2/3/2/H
Course 1 : Applied Anatomy & Applied Physiology				✓				✓
Course 2: Applied Physics and Rehabilitation & medical prosthesis.				✓				✓
Course 3 : Internal medicine & Neurology	✓	✓	✓	✓	✓	✓	✓	✓
Course 4 : Orthopedic surgery	✓	✓	✓	✓	✓	✓	✓	
Course 5 : Rheumatology & rehabilitation & physical medicine	✓	✓	✓	✓	✓	✓	✓	✓

## General Skills

Course	Program covered ILOs						
	2/3/2/I	2/3/2/J	2/3/2/K	2/3/2/L	2/3/2/M	2/3/2/N	2/3/2/O
Course 1 : Applied Anatomy & Applied Physiology			✓		✓		
Course 2: Applied Physics and Rehabilitation & medical prosthesis.			✓		✓		
Course 3 : Internal medicine & Neurology	✓	✓	✓	✓	✓	✓	✓
Course 4 : Orthopedic surgery	✓	✓		✓	✓	✓	✓
Course 5 : Rheumatology & rehabilitation & physical medicine		✓			✓		
Course 1 : Applied Anatomy & Applied Physiology	✓	✓	✓	✓	✓	✓	✓

**Annex 7,  
Additional information:**

### **Department information, Specialized Units and opportunities:**

- Rheumatology inpatient' wards: 40 beds.
- Daily 2 Rheumatology out patients' clinics (new patients, follow up post discharge appointments).
- Musculoskeletal ultrasonography unit.
- Polarized light microscopy unit.
- Neurophysiological study unit.
- plasmapheresis unit.
- Rehabilitation unit.
- Scientific Library (Rheumatology & Rehabilitation Text Books and periodicals), MD, MSc thesis,
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Data base filing of all the cases, procedures and outpatient clinic data.

## **Staff members**

Prof. Essam Ahmad Abda (Department's Head)

Prof. Fatma Elzahraa Abdallah

Prof. Tayseer Mohamed Mahmoud khedr

Prof. Naema Mohammad Mostafa

Prof. Nehal Ahmed Fathi

Prof. Eman Ahmed Hamed Omran

Prof. Eman Abbas Mahmoud

Prof. Zahraa Ibrahim Abo Eloyoun

Prof. Rania Mohamed Gamal El-Deen

Prof. Safaa Ali Gamal Eldeen

Assistant Prof. Nadia Mohamed Esmail

Assistant Prof. Samar Hasanen Goma.

Assistant Prof. Gehan Ibrahim Salem

Assistant Prof. Eman Mohamed Hussin Elhakem

Assistant Prof. Abeer Mahmoud Aly Ghandor

Assistant Prof. Marwa Mahmoud Abdelaziz

Assistant Prof. Marwa Ahmed Abd Elaziz

Assistant Prof. Manal Mohamed Ahmed Hassanin

Assistant Prof. Mohamed Raouf Abd El-Razek.

Assistant Prof. Fatma Elnouby

Assistant Prof. Nevien Hammam



Assistant Prof. Noha Abdelwahab

Assistant Prof. Nada Mohamad Gamal

Assistant Prof. Yasmin Saad Makarem

Assistant Prof. Mona Abdesamea

Assistant Prof. Alaa AbdelKhaleq

Assistant Prof. Yosra Atif Elsherief

Dr. Ramzy Eltahlawy

Dr. Esraa Ahmad Talaat

Dr. Sara Farrag

Dr. Amira Moustafa Elsonbati

Dr. Maha Gamal

Dr. Reem Hasem

Dr. Eman Shawki

### **Department quality control insurance for completing the program**

- Evaluation by the Department head and staff members.
- Regular assessments.
- Log book monitoring.
- Recent equipments and Specialized Units.

**(End of the program specifications)**