Medical Doctorate (M.D.) Degree Program and Courses Specifications for Rheumatology, Rehabilitation & physical medicine

(According to currently applied bylaws)

Rheumatology, Rehabilitation & Physical medicine

Faculty of medicine

Aswan University

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M. D. degree of Physical Medicine, Rheumatology & Rehabilitation

A. Basic Information

- **Program Title: M.D. degree of Rheumatology & Rehabilitation & Physical Medicine.**
- **Nature of the program: Single.**
- **Responsible Department:** Department of Physical Medicine, Rheumatology & Rehabilitation - Faculty of Medicine- Assiut University.
- **External evaluator: prof . Nihal A fathy**
- **Total number of courses: 4 courses**

B. Professional Information

1- Program aims

1/1To enable candidates to master high level of clinical skills, bedside care skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Rheumatology & Rehabilitation & Physical Medicine and enabling the candidates of making appropriate referrals to a sub-specialist.
1/2 To receive formal instruction and clinical experience and demonstrate competence in the prevention, evaluation and management of various rheumatic and musculoskeletal diseases and to provide the candidate with principles of physical medicine and rehabilitation in patients with rheumatologic and various musculoskeletal disorders.
1/3 To Train the candidates on interpretations of different diagnostic procedures used in the field of rheumatology whether radiological imaging, laboratory, nerve conduction studies and others.
1/4 To enable candidates to perform high standard scientific medical research and how to proceed with publication in indexed medical journals.
1/5 To enable candidates to describe the basic ethical and medicolegal principles relevant to the rheumatic disease or rehabilitation medicine.
1/6 To enable candidates to have professional careers as a consultant in Egypt but recognized abroad.
1/7 To enable candidates to continue self learning in subspecialties.
1/8 To enable candidates to master different research methodology and do their own.

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

2/1Knowledge and understanding:

A. Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio – behavioral science relevant to Rheumatology & Rehabilitation & Physical Medicine as well as the evidence – based application of this knowledge to patient care.

B. Explain basics, methodology, tools and ethics of scientific medical, clinical research.

C. Mention ethical, medico logical principles and bylaws relevant to his practice Rheumatology & Rehabilitation & Physical medicine .

D. Mention principles and measurements basics of quality assurance and quality improvement in medical education and in clinical practice of Rheumatology & Rehabilitation & Physical medicine .

E. Mention health care system, public health and health policy, issues relevant to this specialty and principles and methods of system – based improvement of patient care Rheumatology & Rehabilitation & Physical medicine .

2/2 Intellectual outcomes

A. Apply the basic and clinically supportive sciences which are appropriate to the specialty related conditions / problem / topics.

B. Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to Rheumatology & Rehabilitation & Physical medicine .

C. plan research projects.

D. Write scientific papers.

E. Participate in clinical risk management as a part of clinical governance.

F. Plan for quality improvement in the field of medical education and clinical practice in his specialty.

G. Create / innovate plans, systems, and other issues for improvement of performance in his practice.

H. Present and defend his / her data in front of a panel of experts.

I. Formulate management plans and alternative decisions indifferent situations in the field of Rheumatology ,Rehabilitation & Physical medicine.

2/3 Skills

2/3/1 Prac cal skills (Pa ent Care)

Students will be able to:

A. Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health.

p.s. Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice.

B. Provide extensive level of patient care ***for patients with all common diagnoses and for uncomplicated procedures*** Rheumatology & Rehabilitation & Physical medicine .

C. Provide extensive level of patient care ***for non-routine, complicated patients and under increasingly difficult circumstances***, while demonstrating compassionate, appropriate and effective care.

D. Perform diagnostic and therapeutic procedures considered essential in Rheumatology & Rehabilitation & Physical medicine .

E. Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.

F. Communicate effectively and demonstrate caring and respectful behaviors when interacting with patients and their families in Rheumatology & Rehabilitation & Physical medicine related situations**.**

G, Gather essential and accurate information about patients of Rheumatology & Rehabilitation & Physical medicine related conditions.

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

I. Develop and carry out patient management plans for Rheumatology & Rehabilitation & Physical medicine related conditions.

J. Counsel and educate patients and their families about specialty related conditions.

K. Use information technology to support patient care decisions and patient education in all Rheumatology & Rehabilitation & Physical medicine related clinical situations.

L. Perform competently all medical and invasive procedures considered essential for Rheumatology & Rehabilitation & Physical medicine related conditions / area of practices.

M. Provide health care services aimed at preventing Rheumatology & Rehabilitation & Physical medicine related health problems.

N. Lead health care professionals, including those from other disciplines, to provide patient-focused care in Rheumatology & Rehabilitation & Physical medicine related conditions**.**

O. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets. (Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible 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. Demonstrate the competency of continuous evaluation of different types of care provision to patients care provision to patients in the different area of Rheumatology & Rehabilitation & Physical medicine.
B. Appraise scientific evidence.
C. Continuously improve patient care based on constant self-evaluation and life-long learning.
D. Participate in clinical audit and research projects.
E. Practice skills of evidence-based Medicine (EBM).
F. Educate and evaluate students, residents and other health -professionals.
G. Design logbooks.
H. Design clinical guidelines and standard protocols of management.
I. Appraise evidence from scientific studies related to the patients' health problems.
J. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies.
K. Use information technology to manage information, access on-line medical information; for the important topics.

Interpersonal and Communication Skills

L. Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:-

- Present a case.
- Write a consultation note.
- Inform patients of a diagnosis and therapeutic plan completing and maintaining comprehensive.
- Timely and legible medical records.
- Teamwork skills.

M. Create and sustain a therapeutic and ethically sound relationship with patients.

N. Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills.

O. Work effectively with others as a member or leader of a health care team or other professional group.

Professionalism

P. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society.

Q. Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.

R. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.

Systems-Based Practice

S. Work effectively in health care delivery settings and systems related to Rheumatology & Rehabilitation & Physical medicine including good administrative and time management.

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

U. Advocate for quality patient care and assist patients in dealing with system complexities.

V. Design, monitor and evaluate specification of under and post graduate course and programs.

W. Act as a chair man for scientific meetings including time management.

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

Academic standards for Medical Doctorate (MD) degree in **Rheumatology & Rehabilitation & Physical medicine**

Aswan Faculty of Medicine developed MD 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.

4- Program External References (benchmarks)

1. ACGME (Accredita on Council for Graduate Medical Education).
http://www.acgme.org/acWebsite/navPages/nav_Public.asp
2. American Board of Rheumatology
http://www.abim.org/specialty/rheumatology.aspx
3. American Board of Physical Medicine and Rehabilita on
https://www.abpmr.org/index.html

Comparison between program and external reference		
Item	Rheumatology & Rehabilitations & Physical medicine **program**	**American Board of Physical Medicine** and **Rehabilitation**
Goals	Matched	Matched
ILOS	Matched	Matched
Duration	4 years	Different
Requirement	Different	Different
Program structure	Different	Different

5- Program Structure

A. Duration of program: up to 4 years
B. Structure of the program:
Total number of hours

Didactic 498 (11.73%), practical 3747 (88.27%).total 4245
First part
Didactic # 80 (54.79%), 66 practical (45.21%).total146

Second part
Didactic 420 (10.23%) practical 3685(89.77%).total 4105
#Didactic (lectures, seminars, tutorial)

According the currently applied bylaws:
Compulsory courses: 100%
Optional courses: N/A
Elective courses: N/A

	Hours	% from total
Basic courses	146	3.43
Humanity and social courses	0	0
Specialized courses	4105	97.57
Others (Computer, …)	0	0
Field training	3685	86.68

Program Time Table

Duration of program 4 years divided into

- Part 1

Program-related essential courses

- Medical statistics and computer
- Research Methods
- Medical reports and medical ethics

Students are allowed to sit the exams of these courses a er 6 months from applying to the M D degree.

- Part 2

  Minimum 2 years

Program –related academic and specialized science courses and ILOs

Students are not allowed to sit the exams of these courses before 2 years from passing the examina on of the first part.

- Part 3

  Thesis and at least one published research from the thesis

  For the M D thesis;

  MD thesis subject should be officially registered maximally one and half years from applying to the MD degree,

  Discussion and acceptance of the thesis should not be set before 24 months from registering the M D subject and maximally after 4 years;

  It could be discussed and accepted either before or after passing the second part of examination)

Students have to pass the final written exams to be eligible to sit the oral and clinical exams.

If the student fails to pass the clinical and oral exams for 4 mes, he has to repeat the final written exam again.

Final written exams degrees and the case solving are all added together.

The students pass if they get 60% from the summative written exams and 60% from oral and clinical exams.

Total degrees 1000 marks.

Written exam 40% (400 marks).

Clinical and oral exams 60% (600 marks)

Curriculum Structure: (Courses) : ILOS and courses of the program:

Units delivering courses and student work load list	Course Code	Didactic #	training	total
First Part				
Essential Courses **1) Course 1:Medical Statistics and computer** **2) Course 2: Research Methods** **3) Course 3: Medical reports and medical ethics**	FAC309A FAC309B FAC310C	40 30 10	40 18 8	80 48 18
Second Part	Specialized courses Specialized Clinical Work (log Book)			
Specialized Courses **1. Course 4 Rheumatology & Rehabilitation & Physical medicine** **Unit (Module) 1 Rheumatology & related Immunology."** **Unit (Module) 2 Rehabilitation & Physical medicine & Neurophysiological studies."** **Unit (Module) 3 Applied anatomy & Physiology**	**PRR322A**	**420** **180** **180** **60**	**3685** **1843** **1842**	**4105** **2023** **2023** **60**
Third Part **Thesis and at least one published research**				

#Didactic (lectures, seminars, tutorial)

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 specifica ons for each course/ module
Annex 6 II: Program Matrix

7-Admission requirements

- **Admission Requirements (prerequisites) if any :**

I. General Requirements:

- Master degree in the Rheumatology & Rehabilitation .

II. Specific Requirements:

- Fluent in English (study language)

VACATIONS AND STUDY LEAVE

The current departmental policy is give working assistant lecture 3 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 6 months from registering to the MD degree.
- Discussion of the MD thesis could be set after 2 years from officially registering the MD subject, after setting the second part exams.
- The maximum duration of the program is 4 years could be extend to 5 in certain conditions.

The students are offered the degree when:

1. Passing the exams of all essential and specialized courses of this program as regulated by the post graduates approved rules by the faculty council.
2. Discussion and acceptance of the MD thesis and publication of at least one scientific paper from the thesis in preferably specialized medical journals.

9-Program assessment methods and rules (Annex IV)

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

Weighting of assessments:

Courses		Degrees			
First Part	Course code	Written Exam	Oral and/or Practical /Clinical Exam		Total
Essential Courses:					
Medical statistics and computer	FAC309A	80	20		100
Research Methods	FAC309B	80	20		100
Medical reports and medical ethics	FAC310C	70	30		100
Total		230	70		300
Second Part					
	Course code	written	oral	clinical	total
Specialized Courses					
1- Course 4 Rheumatology & Rehabilitation &Physical Medicine **1- Unit (Module) 1Rheumatology & related Immunology.** **2- Unit (Module) 2 Rehabilitation & Physical medicine & Neurophysiological studies.**	**PRR322A**	150 150	150	Clinical 300 Prac cal 100	850
Unit (Module)3 "Applied anatomy & Physiology."		100 (50+50)	50		150
Total		400	200	400	1000

Examination system:

ÿ First part:

- Written exam 2 hours in Medical Statistics and Computer + practical exam
- Written exam 2 hours in Research Methods + practical exam
- Written exam 2 hours in Medical reports and medical ethics + practical and oral exam

ÿ Second part:

- Written exam Two papers 3 hours for each in Rheumatology & Rehabilitation & Physical medicine + Oral exam+ Clinical exam
- Written exam 3 hours in Applied anatomy & Physiology + Oral 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.

Annex 1, Specifications for Courses / Modules

Annex 1: specifica ons for courses/ modules

First Part

1) Course 1: Medical Sta s cs and computer
2) Course 2: Research Methods
3) Course 3: Medical reports and medical ethics

Basic Course 1 : Medical statistics and Computer

Name of department: Public Health and Community Medicine
Faculty of medicine
Aswan University
2019-2020

1. Course data

- **Course Title: Medical statistics and Computer**
- **Course code: FAC309A**
- **Specialty: offered to all clinical and academic specialties**
- **Number of hours: lecture: 40 (50%) , prac cal: 40 (50%), total 80**
- **Department (s) delivering the course:** Pubic Health and Community Medicine
- **Requirements (pre-requisites) if any :**

  Completed Master degree in any of the academic or clinical departments of Medicine.

2. Course Aims

Enable gradute students to use statistical principles to improve their professional work and develop the concept of critical interpretation of data

3. Intended learning outcomes (ILOs):To be able to use statistical principals to manage data

A knowledge and understanding

ILOS	Methods of teaching/ learning	Methods of Evaluation
A. List the types of variables	Lecture and discussion	Practical examination
B. Identify the methods of data collection	Lecture and discussion	discussion
C. Describe the different sampling strategies	Lecture and discussion	discussion
D. Identify types of tabular and graphic presentation of data	Lecture and discussion	Practical examination assignments
E. Identify measures of central tendency and dispersion	Lecture and discussion	Practical examination assignments
F. Identify the characters of normal distribution curve.	Lecture and discussion	Practical examination

B. intellectual

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Describe the normal curves.	Lecture& Discussions	Practical examination
B. Describe and summarize data	Lecture& Discussions	Practical examination
C. Select the proper test of significance	Lecture& Discussions	Practical examination
D. Interpret the proper test of significance	Lecture& Discussions	Practical examination

C. Practical skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design data entry files.	Tutorial on SPSS	Assignments SPSS exam
B. Validate data entry.	Tutorial on SPSS	Assignments SPSS exam
C. Manage data files.	Tutorial on SPSS	Assignments SPSS exam
D. Construct tables and graphs.	Tutorial on SPSS	Assignments SPSS exam
E. Calculate measures of central tendency and dispersion.	Tutorial on SPSS	Assignments SPSS exam
F. Select, apply and interpret the proper test of significance.	Tutorial on SPSS	Assignments SPSS exam

D general skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Appraise scientific evidence	Discussions	Research assignment
B. Use information technology to manage information, access on-line medical information; for the important topics.	tutorial	Research and audits' assignment

4. Course contents (topic s/modules/rota on Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Details of Tests of significance: Proportion test	E,F	A-D	A-F	A&B
Chi-square test	E,F	A-D	A-F	A&B
Student T test	E,F	A-D	A-F	A&B
Paired T test	E,F	A-D	A-F	A&B
Correlation	E,F	A-D	A-F	A&B
-Regression	E,F	A-D	A-F	A&B
-ANOVA test	E,F	A-D	A-F	A&B
Discrimination analysis	E,F	A-D	A-F	A&B
Factor analysis	E,F	A-D	A-F	A&B
parametric and non parametric tests	E,F	A-D	A-F	A&B
Type of variables	A	A-D	A-C	A&B
Methodology of data Collection	B	A-C	A-C	A&B
Sampling	C	-	-	A&B
Tables and graphics	D	A-D	D	A&B

5. Course Methods of teaching/learning

1. Lectures
2. Assignments
3. Discussions
4. Exercises
5. Tutorial on SPSS v.16

6. Course assessment methods:

i. Assessment tools:

1. Practical examination
2. Attendance and active participation
3. Assignments
4. SPSS examination
5. written exam

ii. Time schedule: Mid-term and final 6 months

iii. Marks: 100 marks 33.3% of 1st part.

7. List of references

i. Lectures notes

Department lecture notes

ii. Essential books

Medical stastics.

iii. Recommended books

Discovering statistics using SPSS

iii. Periodicals, Web sites, etc

8. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Basic Course 2: Research Methods

Name of department: All clinical and academic departments
Faculty of medicine
Aswan University
2019-2020

1. Course data

- **Course Title: Research methods**
- **Course code: FAC309B**
- **Specialty: Offered to all clinical and academic specialties**
- **Number of hours: Lecture 30(62.5 %) prac cal 18 (37.5%)total 48 hours**
- **Department (s) delivering the course: Department of public health**
- **Requirements (prerequisites) if any :**

  Completed Master degree in any of the academic or clinical departments of Medicine.

2. Course Aims

To provide graduate students with the skills of:

- Research proposal,
- Writing planning and implementing rigorous research,
- Writing and publishing scientific papers.

3. Intended learning outcomes (ILOs):To be able to write a rigorous research proposal

A knowledge and understanding

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Explain differences between different study designs	Lecture and discussion	Written examination
B. Identify sources and types of bias in research		
C. Describe the different sampling strategies, and compute sample size		
D. Select and design valid measurement tools for research		
E. Explain ethical issues in conducting research on human subjects		
F. describe the rules of authorship in scientific writing		
G. List the steps involved in proposal writing		
H. Identify a research problem within a conceptual framework	Lecture on Criteria to Consider to identify a research problem	discussion

I. Use the web sources to do a literature search	Practical tutorial on web	assignment
J. Select the appropriate study design for the research question	Lecture on various study designs	Written examination
K. Minimize bias in designing research	Lecture on the different types of bias	Written examination

B. intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Apply basic science & knowledge for appraising scientific literature	Discussions &seminars	Written examination

C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Develop a budget and time line for the research	Tutorial	Assignments
B. Design a data entry file	Tutorial on Epi-info or Excel	
C. Identify steps required in fielding the study	Lecture	

D general skills

Practice based learning improvement & professionalism

(Scientific Paper writing skills)

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. To be able to write an abstract	Tutorial	Written examination case study for critque
B. Write the introduction	Tutorial	Written examination
C. Write the methodology section	Tutorial	Written examination
D. Present the results	Tutorial	Written examination
E. Perform Discussion section	Tutorial	Written examination
F. Learn Authorship ethical rules	Tutorial	Written examination

4. Course contents (topic s/modules/rota on Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Study designs	A,J	A	B,C	-
Research appraisal	B,K	A	A	-
Sampling strategies	B	A	B,C	-
Tools for research	D	A	A	A-F
Ethics in research	E,F	A	C	F
Proposal writing	G	A	A	A-F
Research problem	H	A	C	F
Use information technology.	I	A	B	A-F

5. Course Methods of teaching/learning:

1. Lectures
2. Assignments
3. Discussion
4. Exercises

6. Course assessment methods:

i. Assessment tools:

1. Written examination
2. Attendance and active participation
3. Class
4. Assignments

ii. Time schedule: Mid- term and final

iv. Marks: 100 marks 33.3% of 1st part

7. List of references

i. Lectures notes

- Department lecture notes

ii. Essential books

- An epidemiologic Approach to Reproductive Health,CDC,FHI, and WHO Phyllis A. wingo, James E.Higgens, Goerge L. Rubin, and S.Christine Zahniser

iii. Recommended books

- Evidence Based Medicine How to practice and teach EBM.
- David Sachett, Sharon E. Straus, W.Scott Richardson , William Rosenberg R.Brain Haynes

iv. Periodicals, Web sites, … etc

- Dissertation workshop open courseware JHSPH

8. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Basic Course 3: Medical reports and medical ethics

Name of department:
Forensic medicine and clinical toxicology
Faculty of medicine
Aswan University
2019-2020

1. Course data

- **Course Title: Medical reports and medical ethics**
- **Course code: FAC310C**
- **Specialty:General and special surgery and Rheumatology (1 st part)**
- **Number of hours: lecture 10(55.6%) practical 8 (44.4), total 18 hours.**
- **Department (s) delivering the course: Forensic Medicine and Clinical Toxicology**

- **Requirements (prerequisites) if any :**
  Completed Master degree

2. Course Aims

1. Write the death certificate.
2. Recognize medical laws of euthanasia, organ transplantation.
3. Write medical and legal reports
4. List causes of Medical responsibilities.
5. Explain the ethics in research.
6. Identify Medical ethics (in practice).
7. Diagnose causes of death during surgical interventions, and due to anesthesia
8. Demonstrate types of wounds and types of firearm injuries

3. Intended learning outcomes (ILOs):

A knowledge and understanding

Competency and Skills	Methods of teaching/ Learning	Methods of Evaluation
A. Mention principals of writing consent forms.	Lecture and discussion	Discussion
B. Mention principals of Writing a death certificate	Lecture and discussion	Discussion and practical
C. Explain principals of medical reports.	Lecture and discussion	Discussion and practical
D. Mention principals of Dealing with wounds.	Lecture and discussion	Discussion and practical
E. Mention principals of firearm injuries.	Lecture and discussion	Discussion and practical
F. List indications of induced emesis, gastric lavage and samples collection.	Lecture and discussion	Discussion and practical

B . intellectual

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Design and present case , seminars in death certificate	Lecture and discussion	Discussion and practical
B. Design and present case, seminars in toxicological cases	Lecture and discussion	Discussion and practical

C. Practical skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Identify medical ethics and ethics in research.	Lecture and discussion	Discussion
B. Prepare and write consent.	Lecture and discussion	Discussion
C. Identify medical responsibilities.	Lecture and discussion	Discussion
D. Write death certificate.	Lecture and discussion	Discussion and practical
E. Deal with a case of Suspicious death	Lecture and discussion	Discussion and practical
F. Write medical reports	Lecture and discussion	Discussion and practical
G. Identify types of wounds and deal with them.	Lecture and discussion	Discussion and practical
H. Identify types, distance and	Lecture and Discussion	Discussion and practical

direction of firearm wounds and deal with them		
I. Elicit death associated with surgical anesthesia.	Lecture and discussion	Discussion and practical
J. Perform gastric lavage, induce emesis, and obtain samples	Lecture and discussion	Discussion and practical

D general Skills

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Present a case.	Lecture and discussion	Global rating logbook
B. Write a consultation note	Lecture and discussion	Global rating logbook
C. Inform patients and maintaining comprehensive.	Lecture and discussion	Global rating logbook
D. Make timely and legible medical records	Lecture and discussion	Global rating logbook
E. Acquire the teamwork skills	Lecture and discussion	Global rating logbook

4. Course contents (topic s/modules/rota on Course Matrix

Time Schedule: First Part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
6. Death and death certificate.	B	A	D	
7. Suspicious death	B		E	B
8. Death associated with surgical anesthesia	B		I	B
9. Medical reports	C	B	F	A,D,E
10. Toxicological Reports	F	B	J	A,E
11. Wounds	D		G	B
12. Firearm injuries	E		H	B
13. Ethics in research			A	
14. Medical ethics.	A		A,B,C	C,E

5. Course Methods of teaching/learning:

1. **Lectures.**
2. **Discussions.**
3. **Exercises.**

6. Course assessment methods:

i. Assessment tools:

1. **Assessment tools: Practical examination.**
2. **Attendance and active participation.**
3. **Written examination.**

ii. Time schedule: At the end of first part

iii. Marks: 100 marks 33.3% of 1st part

7. List of references

i. Lectures notes

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

ii. Essential books

- **Ballantyne B., Marrs T. and Syversen T.(1999):**General and Applied Toxicology.2nd edition. MACMILLAN REFERENCE LTD.UK.
- Bernard Knight and Pekka Saukko (2004): Knight Forensic Pathology. Hodder Arnold press

iii. Recommended books

- Klassen D. (2001): Casare and Doull s. Toxicology the basic science of poisons. McGrow. Hill press medical publishing division New York

IV. Journal and web site

- Journals of all Egyptian Universities of Forensic Medicine and Clinical Toxicology.
- All International Journals of Forensic Medicine and Clinical Toxicology which available in the university network at www.sciencedirect.com. As :

Forensic Science International Journal.

Toxicology Letter.

v. others

8. Signatures

Course Coordinator:	**Head of the Department:**
Date:	**Date:**

Second Part

Course 4 Rheumatology & Rehabilitation &Physical Medicine

Name of department: of Rheumatology & Rehabilitation & physical medicine
Faculty of medicine
Aswan University
2019-2020

I. Course data

- **Course Title: Rheumatology & Rehabilitation & physical medicine**
- **Course code: PRR322A**
- **Specialty: Rheumatology & Rehabilitation & Physical medicine**
- **Number of hours: Didactic 420 (10.23%) practical 3685(89.77%).total 4105**
- **Department (s) delivering the course: : Department of**
- **Rheumatology & Rehabilitation & Physical medicine- Faculty of Medicine- Aswan - EGYPT**
- **Requirements (prerequisites) if any : None**
- **Requirements from the students to achieve course ILOs are clarified in the joining log book.**

2. Course Aims

1. To enable MD students to master high level of clinical skills, in addition to update medical knowledge as well as clinical experience and competence in the area of Rheumatology & related Immunology as well as the evidence – based application of this knowledge to patient care.
2. To provide candidates with fundamental knowledge and skills of investigatory and analytic thinking “problem – solving “approaches to clinical situation related to Rheumatology & related Immunology.
3. To be able to make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the Rheumatology & Rehabilitation & Physical medicine related conditions.
4. To gain proficiency in the use and performance of arthrocentesis, local joint injection and therapeutic exercise as diagnostic and therapeutic tools emphasizing indications, complications and likelihood of successful outcome.
5. Master proficiency in performing complex procedures and handling unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns.
6. To acquire indepth Anatomical & physiological facts necessary for Rheumatology, Rehabiliation & Physical medicine

3. Course intended learning outcomes (ILOs):

Unit (Module) 1 Rheumatology & related Immunology

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Explain update and evidence based etiology, clinical picture, diagnosis and management of the following common diseases and clinical conditions: 1-Rheumatoid arthritis. 2-Juvenile idiopathic arthritis (JIA) 3-Sjögren's syndrome. 4-Adult onset still's disease. 5-Seronegative spondylo-arthropathies (psoriatic arthritis, ankylosing spond-ylitis, reactive and enteropathic arthritis) 6-Gouty and calcium pyrophosphate dehydrate hydroxyapatite and other crystals arthropathies 7-Osteoarthritis and other degenerative arthritis 8-Systemic lupus erythematosus. 9-Antiphospholipid syndrome. 10-Systemic sclerosis. 11- Other connective tissue disorders 12-Idiopathic inflammatory myopathies	Didactic (lectures, seminars, tutorial) -Clinical rounds -Seminars -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 and another one in the third year -Written and oral examination
B. Mention the principles of Basic Immunology : T-lymphocyte, B-lymphocytes, fibroblasts &neutrophils.	Clinical round with senior staff -Observation -Post graduate teaching	- Procedure presentation - Log book - Chick list

	-Hand on workshops -Perform under supervision of senior staff.	
C. Mention Basics of the following rare diseases and conditions: • Periodic syndrome. • Infectious arthritis e.g. rheumatic fever, septic, viral arthritis. • Fibromyalgia • Less common arthropathies e.g. endocrinopathies. • Metabolic bone disease (osteoporosis, osteomalcia) • vasculitis. • Immunology related to rheumatological diseases		
D. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Rheumatology and related immunology		
E. Explain the facts and principles of the relevant basic and clinically supportive sciences related to Rheumatology and related immunology		
F. Describe the basic ethical and medicolegal principles revenant to the Rheumatology and related immunology		
G. Describe the basics and measurements of quality assurance to ensure good clinical care in his field		
H. Explain the ethical and scientific principles of medical research		
I. Explain the impact of common health problems in the field of Rheumatology and related immunology on the society.		

B-Intellectual outcomes

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Design / present case in common problem related to Rheumatology and related immunology	Clinical rounds -Senior staff experience	-Procedure and case presentation -Log book & Portfolio
B. Apply the basic and clinically supportive sciences which are appropriate to the Rheumatology , Rehabilitation & physical medicine related conditions / problem / topics.		
C. Demonstrate an investigatory and analytic thinking “problem – solving “approaches to clinical situation related to Rheumatology , Rehabilitation & physical medicine		
D. Plan research projects.		
E. Write scientific papers.		
F. Lead risk management activities as a part of clinical governs.		
G. Plan quality improvement activities in the field of medical education and clinical practice in his specialty.		
H. Create / innovate plans, systems, and other issues for improvement of performance in his practice.		
I. Present and defend his / her data in front of a panel of experts		
J. Formulate management plans and alternative decisions in different situations in the field of Rheumatology and related immunology .		

C-Practical skills (Patient Care)

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Take history, examine and clinically diagnose different conditions Rheumatology and related immunology.	-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 and another one in the third year -Clinical exam
B. Order the following non invasive and invasive diagnostic procedures: diagnostic procedures: - Laboratory tests as: -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.	Clinical round with senior staff -Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior	- Procedure presentation - Log book - Chick list

-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.	staff	
C. Interpret the following non invasive and invasive diagnostic procedures: -Radiography for hands, feet and any other affected joints. -Chest x-ray. -DEXA. -Electrophysiological studies. -Synovial fluid examinations by PLM for crystals. -Arthrocentesis and local steroid injection -Plasmapharesis.	-Clinical round with senior staff - Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
D. Perform the following non invasive and invasive diagnostic procedures: -Synovial fluid examinations by PLM for crystals. -Arthrocentesis and local steroid injection -Plasmapharesis. - EMG & NCV -Electrophysiological studies. -Synovial fluid examinations by PLM for crystals.	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops -Perform under	- Procedure presentation - Log book - Chick list

	supervision of senior staff	
E. Prescribe the following non invasive& invasive therapeutic procedures. - Arthrocentesis and local steroid injection -Plasmapharesis. - DMARDs, Cytotoxic drug regimen in indicated cases	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Perform the following non invasive and invasive therapeutic procedures: - Arthrocentesis and local steroid injection -Plasmapharesis. - DMARDs, Cytotoxic drug regimen in indicated cases	-Clinical round with senior staff Observation -Post graduate teaching -Hand on workshops -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
G. Develop and carry out patient management plans for the following problems Diseases mentioned in A.A	-Clinical round with senior staff	

Discharged patients from Rhuematology dept. inpatient		
H. Counsel and educate patients and their family about: -Prognosis in different diseases - Symptoms of critical illness -Methods of management	-Clinical round with senior staff	
I. Use information technology to support patient care decisions and patient education for Rheumatology and related immunology related conditions.	-Clinical round with senior staff	
J. Provide health care services aimed at preventing the following conditions: -Deformities and disabilities. -Contractures -Relapse of rheumatologic diseases caused by stoppage of medical ttt	-Clinical round with senior staff	
K. Work with health care professionals, including those from other disciplines, to provide patient-focused care . - Side effects of DMARDS how to monitor toxicity - Awarness of adherence to medical ttt .		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records).		

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 in the common problems (plan and conduct audit cycles) in previously mentioned rheumatologic diseases	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	- Global rating -Procedure & case presentation -Log book & Portfolios - Chick list
B. Locate, appraises, and assimilates evidence from scientific studies related to patients' health problems. - Avoidance Side effects of cytotoxic drugs. - Latest management plans for different diseases	-Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	Global rating -Procedure & case presentation -Log book & Portfolios - Chick list
C. Apply knowledge of study designs and statistical methods to the appraisal of clinical studies and other information on diagnostic and therapeutic effectiveness		
D. Use information technology to manage information, access on-line medical information; and support their own education		
E. Lead the learning of students and other health care professionals.		

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
F. Create and sustain a therapeutic and ethically sound relationship with patients	Simulations -Clinical round -Seminars -Lectures -Case presentation -Hand on workshops	Global rating -Procedure & case presentation -Log book & Portfolios - Chick list
G. Perform the following oral communications: - Advise patient for synchrony - Deal with patient relatives - Ordering residents - Ordering nurses		
H. Fill the following reports: - Discharge card with current ttt plan - Follow-up sheet for rheumatology pts		
I. Work effectively with others as a member or leader of a health care team e.g. in labor ward		

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
J. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	- Observation - Senior staff experience - Case	1. Objec ve structured clinical examination 2. Pa ent survey

	taking	
K. Demonstrate a commitment to ethical principles pertaining to provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices.		1. 360o global rating
L. Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities		

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
M. Work effectively in different health care delivery settings and systems.	Observation - Senior staff experience -Case taking	1. 360o global rating
N. Practice cost-effective health care and resource allocation that does not compromise quality of care		1. Check list evaluation of live or recorded performance
O. Advocate for quality patient care and assist patients in dealing with system complexities		1. 360o global rating 2. Pa ent survey
P. Partner with health care managers and health care providers to assess, coordinate, and improve health care and predict how these activities can affect system performance		

Unit (Module) 2 Physical medicine & Rehabilitation

A-Knowledge and understanding

ILOs	Methods of teaching/ learning	*Methods of Evaluation*
A. Describe the scientific base, clinical application of the following **Sec on 1: Physical modalities** -Hydrotherapy. -cryotherapy. -hot packs. -shortwave. -Ultrasound. -Infrared. -electric stimulation. -biofeed back -TENS	-Didactic (lectures, seminars, tutorial) -Clinical rounds -Clinical rotations (service teaching)	-OSCE at the end of each year -log book & portfolio - Two MCQ examination at the second year -Oral and written exam
B. Mention the principles of Rehabilitation of the following conditions **Sec on 2: rehabilita on of following condi ons** -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. -Sport trauma. -Muscle and Motor neuron diseases. -related orthopedic problems -Upper limb amputee rehabilitation. -Lower limb amputee rehabilitation. -Pulmonary rehabilitation -Cardiac rehabilitation.		

-Rehabitation of patients with rheumatic diseases. -Patients with neuropathies. - Stroke syndromes -Cerebral palsy. -Spinal cord injuries. -Traumatic brain injury rehabilitation -Burns **Section 3: assistive aids** -Walking aids, wheelchairs and seating systems. -Upper limb orthotic devices, -Lower limb orthoses. -Upper limb protheses, -Lower limb porthoses. -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 & Rehabilitation		
E. Mention the basic ethical and medicolegal principles relevant to the Physical medicine & Rehabilitation		
F. Mention the basics of quality assurance to ensure good clinical care in Physical medicine & Rehabilitation		
G. Mention the ethical and scientific principles of medical research		
H. State the impact of common health problems in the field of Physical medicine & Rehabilitation 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 & Rehabilitation	-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 & Rehabilitation		
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 & Rehabilitation.		

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 and another one in the third year
B. Order the following non invasive and invasive diagnostic procedures • Radiography for hands, feet and any other affected joints for post traumatic injuries • Electrophysiological studies. • DEXA.	-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 • Radiography for hands, feet and any other affected joints for post traumatic injuries • Electrophysiological studies. • DEXA	-Clinical round with senior staff Observation - Post graduate teaching	

	-Hand on workshops	
D. Perform the following non invasive and invasive diagnostic and therapeutic procedures: • Electrophysiological studies. • Arthrocentesis and local steroid injection	-Clinical round with senior staff Observation Post graduate teaching -Hand on workshops	
E. Prescribe the following non invasive and invasive therapeutic procedures : • Arthrocentesis and local steroid injection • *Rehabilitation plan with various physical modalities* • *Medical ttt when indicated*	-Clinical round with senior staff -Perform under supervision of senior staff	- Procedure presentation - Log book - Chick list
F. Develop & Carry out patient management plans for common conditions related to Physical medicine & Rehabilitation	- 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 & Rehabilitation		
H. Provide health care services aimed at preventing health problems related to Physical medicine & Rehabilitation		
I. Provide patient-focused care in common conditions related to Physical medicine & Rehabilitation, while working with health care professionals, including those from other		

disciplines like: • Conditions mentioned in A.A		
J. Work with health care professionals, including those from other disciplines, to provide patient-focused care for the following • When to refer to orthopedic. • When and how to treat via different treatment option • Weight reduction		
K. Provide health care services aimed at preventing the following conditions • Motor car accidents • Complications of fracture		
L. Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive, timely and legible medical records)		

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 - 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 as regard diagnosis and treatment of the above mentioned conditions in A.A		
J. Present a case in • Common problems of Physical medicine & Rehabilitation		
K .Write a report • Rehabilitation program • Patients' medical reports	-Senior staff experience	
L. Council patients and families about • Traumatic Brain injury • Spinal cord injuries • Geriatric cases	-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 3 Applied anatomy & Physiology

A-Knowledge and understanding

Competency and Skills	Methods of teaching/ learning	Methods of Evaluation
A. Describe the following *Anatomic details of Musculoskeletal system * Basic anatomy of central and peripheral nervous system * Basic anatomy of cardiovascular & respiratory system B. demonstrate *Physiologic details of Musculoskeletal system *Physiologic details of central and peripheral nervous system *Physiologic Principles of circulation, respiration and metabolism	Lectures	.Written and oral examination. . Log book

B-Intellectual outcomes:

ILOs	Methods of teaching/ learning	Methods of Evaluation
A. Correlates the facts of Physiology & Anatomy with clinical reasoning, diagnosis and management of common diseases related to Rheumatolgy & Rehabilitation.	-Didactic (lectures, seminars, tutorial)	-Written and oral examination -Log book
B. Demonstrate an investigatory and analytic thinking (problem solving) approaches to common clinical situations related to Rheumatology & Rehabilitation.		

C-Practical skills

Practical: 0 hours

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 and oral communication	Log book

Interpersonal and Communication Skills

ILOs	Methods of teaching/ learning	Methods of Evaluation
B. Write a report in common condition mentioned in A.A	-Clinical round -Seminars -Lectures	-Global rating -Log book and Portfolios -Chick list

Professionalism

ILOs	Methods of teaching/ Learning	Methods of Evaluation
C. Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society that supersedes self-interest.	- Observation and supervision Written & oral communication	- Objective structured clinical examination - Patient survey

Systems-Based Practice

ILOs	Methods of teaching/ learning	Methods of Evaluation
D. Work effectively in different health care delivery settings and systems.	-Observation -Senior staff experience	-360o global rating
E. Partner with health care managers and health care providers to assess, coordinate, and improve health care and predict how these activities can affect system performance		

4. Course contents (topic s/modules/rota on Course Matrix

Time Schedule: Second part

Topic	Covered ILOs			
	Knowledge A	Intellectual B	Practical skills C	General Skills D
Unit (Module) 1 Rheumatology & related Immunology				
Section 1: Immunology				
Autoimmunity	B,D	B,D,E,I	-	D,E
Innate immunity Adaptive immunity	B,D	B,D,E,I	-	D,E
Genetics of rheumatic diseases	B,D	B,D,E,I	-	D,E
Complement system	B,D	B,D,E,I	-	D,E
Signal transduction	B,D	B,D,E,I	-	D,E
Cytokines	B,D	B,D,E,I	-	D,E
Cell survival & death in rheumatic diseases	B,D	B,D,E,I	-	D,E
Cells involved in auto immune diseases & inflammation	B,D	B,D,E,I	-	D,E
T- cells	B,D	B,D,E,I	-	D,E
B-cells	B,D	B,D,E,I	-	D,E
Fibroblasts	B,D	B,D,E,I	-	D,E
Neutrophils & eosinophils	B,D	B,D,E,I	-	D,E
Mast cells & platlets	B,D	B,D,E,I	-	D,E
Section 2:Rheumatologic diseases				
1-Rheumatoid arthritis	A-H	A-J	A-L	A-P

2-Juvenile idiopathic arthritis (JIA)	A-H	A-J	A-L	A-P
3-Sjögren's syndrome A-H	A-J		A-L	A-P
4-Adult onset still's disease A-H	A-		A-L	A-P
5-Seronegative spondylo-arthropathies (psoriatic arthritis, ankylosing spond-ylitis, reactive and enteropathic arthritis)	A-H	A-J	A-L	A-P
6-Crystal arthropathy A-H	A-J		A-L	A-P
7-Osteoarthritis and other degenerative arthritis	A-H	A-J	A-L	A-P
8-Systemic lupus erythematosus	A-H	A-J	A-L	A-P
9-Antiphospholipid syndrome	A-H	A-J	A-L	A-P
10-Systemic sclerosis A-H	A-J		A-L	A-P
11-Other connective tissue disorders	A-H	A-J	A-L	A-P
12-Idiopathic inflammatory myopathy	A-H	A-J	A-L	A-P
13-Periodic syndrome A-H	A-J		A-L	A-P
14-Infectious arthritis e.g. rheumatic fever, septic, viral arthritis	A-H	A-J	A-L	A-P
15-Fibromyalgia A-H		A-L	A-L	A-P
16-Less common arthropathies e.g. endocrinopathies	A-H	A-L	A-L	A-P
17-Metabolic bone disease (osteoporosis, osteomalcia)	A-H	A-L	A-L	A-P
18- Vasculitis	A-H	A-L	A-L	A-P
Unit (Module) 2 Physical medicine & Rehabilitation				
Sec on 1:Physical modalities -Hydrotherapy.	B,D	B,D,E,I	-	D,E

-cryotherapy. -hot packs. -shortwave. -Ultrasound. -Infrared. -electric stimulation. -biofeed back -TENS. Sec on 2: rehabilitation of following conditions -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.	A-H	A-D	A-L	A-R
-Sport trauma. -Muscle and Motor neuron diseases. -related orthopedic problems -Upper limb amputee rehabilitation. -Lower limb amputee rehabilitation. -Pulmonary rehabilitation. -Cardiac rehabilitation. -Rehabitation of patients with rheumatic diseases. -Patients with neuropathies. -Traumatic brain injury rehabilitation -Stroke syndromes	A-H	A-D	A-L	A-R

-Cerebral palsy. -Spinal cord injuries. -Burns. -Geriatric Problems	A-H	A-D	A-L	A-R
Section 3: assistive aids -Walking aids, wheelchairs and seating systems. -Upper limb orthotic devices, -Lower limb orthoses. -Upper limb protheses, -Lower limb porthoses. -Spinal orthoses.	B,D	B,D,E,I	A-L	A-R
Unit 3 Applied anatomy & Physiology				
Section 1 Anatomy:				
1-Anatomy of the upper limb	A	A,B	-	A-E
2- Anatomy of the lower limb	A	A,B	-	A-E
3- Anatomy of the back	A	A,B	-	A-E
4-Anatomy of the facial nerve	A	A,B	-	A-E
Section 2 PHYSIOLOGY				
1-Physiology of nerve and Muscle	B	A,B	-	A-E
2- Effect of muscular exercise on respiration	B	A,B	-	A-E
3- Effect of muscular exercise on cardiovascular system	B	A,B	-	A-E
4-Physiology of obesity	B	A,B	-	A-E
5-Receptors	B	A,B	-	A-E
6-Pain sensation and it's control system	B	A,B	-	A-E
7-Upper and lower motor neuron lesions	B	A,B	-	A-E
8-Spinal cord lesions	B	A,B	-	A-E
9-CNS (ascending and descending tracts)	B	A,B	-	A-E

10-Stretch reflex	B	A,B	-	A-E
11-Skeletal muscle tone and tendon jerks	B	A,B	-	A-E

5. Course Methods of teaching/learning:

1. Didactic (lectures, seminars, tutorial)
2. Outpatient
3. Inpatient
4. Clinical rounds
5. Clinical rotations

6.Service teaching

1. Direct observation
2. Post graduate teaching
3. Hand on workshops
4. Perform under supervision of senior staff
5. Simulations
6. Present a case (true or simulated) in a grand round
7. Case Taking
8. journal club,
9. Critically appraised topic,
10. Educational prescription
11. Observation & supervision
12. 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:

- ÿ Clinical examination
- ÿ Written
- ÿ Oral examination
- ÿ Chick list
- ÿ log book & portfolio
- ÿ Procedure/case presentation

ÿ One MCQ examination in f the second year and one in the third year
ÿ Objective structured clinical examination
ÿ Check list evaluation of live or recorded performance
ÿ Record review (report)
ÿ Patient survey
ÿ 360o global rating

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

iii. Marks: 1000 marks

8. List of references

i. Lectures notes

- Course notes
- Staff members print out of lectures and/or CD copies
- Principles of Rheumatology & Rehabilitation Diseases Book by Staff Members of the Department of Rheumatology & Rehabilitation & Physical medicine - Aswan University

ii. Essential books:

- Primer's text book of Rheumatology2008
- Kelly's text book of Rheumatology 2008
- Guyton AC, Hall JE: Textbook of Medical Physiology, 11th ed. Saunders, 2006.

iii. Recommended books

- Current Diagnosis & Treatment in Rheumatology 2008
- Bradom textbook of Rehabilitation & Physical medicine 2008

iv. Periodicals, Web sites, … etc

- American Journal of physical medicine
- Egyptian Journal of Rheumatology & Rehabilitation
- Journal of The Egyptian Society of Joint Diseases & Arthritis

v. Others : none

9. Signatures

Course Coordinator: ……	**Head of the Department:** ……
Date: ……	**Date:** ……

ANNEX 2
Program Academic Reference Standards (ARS)

1- Graduate attributes for medical doctorate in Rheumatology, Rehabilitation & Physical Medicine

***The Graduate (after residence training and medical doctorate years of study) must*:**

1- Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in *Rheumatology, Rehabilitation & Physical Medicine*.

2- Have continuous ability to add knowledge to *Rheumatology, Rehabilitation & Physical Medicin*e through research and publication.

3- Appraise and utilise relevant scientific knowledge to continuously update and improve clinical practice.

4- Acquire excellent level of medical knowledge in the basic biomedical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific research.

5- Function as a leader of a team to provide patient care that is appropriate, effective and compassionate for dealing with health problems and health promotion.

6- Identify and create solutions for health problems in *Rheumatology, Rehabilitation & Physical Medicin*e.

7- Acquire an in depth understanding of common areas of *Rheumatology, Rehabilitation & Physical Medicin*e, from basic clinical care to evidence based clinical application,

and possession of required skills to manage independently all problems in these areas.

8- Demonstrate leadership competencies including 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.

9- Function as teacher in relation to colleagues, medical students and other health professions.

10- Master decision making capabilities in different situations related to *Rheumatology, Rehabilitation & Physical Medicin*e.

11- Show leadership 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.

12- Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.

13- Show model attitudes and professionalism.

14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in *Rheumatology, Rehabilitation & Physical Medicin*e or one of its subspecialties.

15- Use recent technologies to improve his practice in *Rheumatology, Rehabilitation & Physical Medicin*e.

16- Share in updating and improving clinical practice in *Rheumatology, Rehabilitation & Physical Medicin*e.

2- Competency based Standards for medical doctorate in Rheumatology, Rehabilitation & Physical Medicine

22.1- Knowledge and understanding

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

2-1-A- Established, updated and evidence- based theories, basics and developments of *Rheumatology, Rehabilitation & Physical Medicin*e and relevant sciences.

2-1-B- Basics, methods and ethics of medical research.

2-1-C- Ethical and medicolegal principles of medical practice related to *Rheumatology, Rehabilitation & Physical Medicin*e.

2-1-D- Principles and measurements of quality in *Rheumatology, Rehabilitation & Physical Medicin*e.

2-1-E- Principles and efforts for maintainace and improvements of public health.

2- Intellectual skills

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

2-2-A- Application of basic and other relevant science to solve *Rheumatology, Rehabilitation & Physical Medicine* related Problems.

2-2-B- Problem solving based on available data.

2-2-C- Involvement in research studies related to *Rheumatology, Rehabilitation & Physical Medicin*e.

2-2-D- Writing scientific papers.

2-2-E- Risk evaluation in the related clinical practice.

2-2-F- Planning for performance improvement in *Rheumatology, Rehabilitation & Physical Medicin*e.

2-2-G- Creation and innovation in *Rheumatology, Rehabilitation & Physical Medicin*e.

2-2-H- Evidence – based discussion.

2-2-I- Decision making in different situations related to*Rheumatology, Rehabilitation & Physical Medicin*e.

2.3- Clinical skills

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

- ***Competency-based outcomes for Patient Care:-***

2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in *Rheumatology, Rehabilitation & Physical Medicin*e.

2-3-B- Master patient care skills relevant to *Rheumatology, Rehabilitation & Physical Medicin*e for patients with all diagnoses and procedures.

2-3-C- Write and evaluate reports for situations related to the *Rheumatology, Rehabilitation & Physical Medicine*.

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-Master 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 competently all information sources and technology to improve his practice.

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

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

2-4-D-Master 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-Master Professionalism behavior, 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- Participate in improvement of the education system.

2-4-H- Demonstrate skills of leading scientific meetings including time management

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

Annex 3, Methods of teaching/learning

Annex 3, Methods of teaching/learning

	Patient care	**Medical knowledge**	**Practice-based learning/ Improvement**	**Interpersonal and communication skills**	**Professionalism**	**Systems-based practice**
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 evalua on methods for MD students.

Method	Practical skills	K	Intellectual	General skills			
	Patient care	K	I	Practice-based learning/ Improvement	Interpersonal and communication skills	Professionalism	Systems based practic
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	

Annex 4, Glossary of MD students 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 MD 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 MD doctor's performance on checklists and provide feedback for history taking, physical examination, and communication skills. Physicians may also rate the MD doctor's performance.

- Objective Structured Clinical Examination (OSCE) – A series of stations with standardized tasks for the MD doctors to perform. Standardized patients and other assessment methods often are combined in an OSCE. An observer or the standardized patient may evaluate the MD doctors.

- Procedure or Case Logs – MD 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 MD 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 – MD doctors, faculty, nurses, clerks, and other clinical staff evaluate MD doctors from different perspectives using similar rating forms.
- Portfolios – A portfolio is a set of project reports that are prepared by the MD doctors to document projects completed during the MD 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 – MD 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 MD 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:

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

1- Graduate attributes

Faculty ARS
1- Demonstrate competency and mastery of basics, methods and tools of scientific research and clinical audit in *Rheumatology, Rehabilitation & Physical Medicin*e.
2- Have continuous ability to add knowledge new developments to *Rheumatology, Rehabilitation & Physical Medicin*e through research and publication.
3- Appraise and utilise scientific knowledge to continuously update and improve clinical practice and relevant basic sciences.
4- Acquire excellent level of medical knowledge in the basic biomedical, clinical, behavioural and clinical sciences, medical ethics and medical jurisprudence and apply such knowledge in patient care and scientific
5- Function as a leader of a team to provide patient care that is appropriate, compassionate for dealing with effective andhealth problems and health promotion .
6- Identify and create solutions for health problems in *Rheumatology, Rehabilitation*

& Physical Medicine.
7- Acquire an in depth understanding of common areas of *Rheumatology Rehabilitation & Physical Medicin*e, from basic clinical care to evidence based clinical application, and possession of skills to manage independently all problems in these areas.
8- Demonstrate leadership competencies including 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 . 9- Function as teacher in relation to colleagues, medical students and other health professions.
10- Master decision making capabilities in different situations related to *Rheumatology, Rehabilitation & Physical Medicine*.

11- Show leadership 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.
12- Demonstrate in depth awareness of public health and health policy issues including independent ability to improve health care, and identify and carryout system-based improvement of care.
13- Show model attitudes and professionalism.
14- Demonstrate commitment for lifelong learning and maintenance of competence and ability for continuous medical education and learning in subsequent stages and in *Rheumatology, Rehabilitation & Physical Medicine* or one of its subspecialties. *15*- Use recent technologies to improve his practice in *Rheumatology, Rehabilitation & Physical Medicine*

2- Academic standards

Faculty ARS
2.1. A- Established, updated and evidence- based theories, basics and developments of *Rheumatology, Rehabilitation & Physical Medicine* and relevant sciences.
2.1. B- Basic, methods and ethics of medical research.
2.1. C- Ethical and medicologal principles of medical practice related to *Rheumatology, Rehabilitation & Physical Medicine*.
2.1. D- Principles and measurements of quality in *Rheumatology, Rehabilitation & Physical Medicine*.
2.1. E- Principles and efforts for maintains and improvements of public health.
2.2. A- Application of basic and other relevant science to solve *Rheumatology, Rehabilitation & Physical Medicine* related problems.
2.2.B- Problem solving based on available data.
2.2.C- Involvement in research studies related to *Rheumatology, Rehabilitation & Physic Medicine*.
2.2. D- Writing scientific papers.
2.2. E- Risk evaluation in the related clinical practic

2.2.F- Planning for performance improvement in *Rheumatology, Rehabilitation & Physical Medicine*.
2-2-G- Creation and innovation in the *Rheumatology, Rehabilitation & Physical Medicine*.
2.2. H- Evidence – based discussion.
2.2.I- Discussion making in different situations related to*Rheumatology, Rehabilitation & Physical Medicine*.
2.3. A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in *Rheumatology, Rehabilitation & Physical Medicine*. 2.3. B- Master patient care skills relevant to *Rheumatology, Rehabilitation & Physical Medicine* or patients with all diagnoses and procedures.
2.3. C- Write and evaluate reports for situations related to the field of *Rheumatology, Rehabilitation & Physical Medicine*.
2.4.A-Master 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 competently all information sources and technology to improve his practice.
2.4.A-Master 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.G- Participate in improvement of the education system.

II- Program ARS versus program ILOs

Comparison between ARS- ILOS for medical doctorate for Rheumatology, Rehabilitation & Physical Medicine

ARS)	LOs)
2-1- Knowledge and understanding 2-1-A- Established, updated and evidence-based Theories, Basics and developments of *Rheumatology, Rehabilitation & Physical Medicine* and relevant sciences.	*2-1- Knowledge and understanding* 2-1-A- Demonstrate in-depth knowledge and understanding of theories, basics and updated biomedical, clinical epidemiological and socio behavioral science relevant to his specialty as well as the evidence – based application of this knowledge to patient care.
2-1-B Basic, methods and ethics of medical research.	2-1-B- Explain basics, methodology, tools and ethics of scientific medical, clinical research.
2-1-C- Ethical and medicologal principles of medical practice related to *Rheumatology, Rehabilitation & Physical Medicine* field.	2-1-C- Mention ethical, medico logical principles and bylaws relevant to his practice in the field of *Rheumatology, Rehabilitation & Physical Medicine*.
2-1-D- Principles and measurements of quality in the *Rheumatology, Rehabilitation & Physical Medicine* field.	2-1-D- Mention principles and measurements of quality assurance and quality improvement in medical education and in clinical practice of *Rheumatology, Rehabilitation & Physical Medicine*.
2-1-E-Principles and efforts for maintains and improvements of public health.	2-1-E- Mention health care system, public health and health policy, issues relevant to this specialty and principles and methods of system – based improvement of patient care in common health problems of the field of*Rheumatology, Rehabilitation & Physical Medicine*

2-2- : *Intellectual skills*	*2-2- Intellectual skills:*
2-2-A-Application of basic and other relevant science to solve *Rheumatology, Rehabilitation & Physical Medicine* related problems.	2-2-A- Apply the basic and clinically supportive sciences which are appropriate to*Rheumatology, Rehabilitation & Physical Medicine* related conditions / problem / topics.
2-2-B-Problem solving based on available data.	2-2-B- Demonstrate an investigatory and analytic thinking "problem – solving "approaches to clinical situation related to *Rheumatology, Rehabilitation & Physical Medicine*.
2-2-C- Involvement in research studies related to the *Rheumatology, Rehabilitation & Physical Medicine*.	2-2-C- Plan research projects.
2-2-D Writing scientific papers.	2-2-D- Write scientific paper.
2-2-E-Risk evaluation in the related clinical practice.	2-2-E- Participate in clinical risk management as a part of clinical governance.
2-2-F-Planning for performance improvement in the *Rheumatology, Rehabilitation & Physical Medicine* field.	2-2-F- Plan for quality improvement in the field of medical education and clinical practice in *Rheumatology, Rehabilitation & Physical Medicine*.
2-2-G-Creation and innovation in the specialty field.	2-2-G- Create / innovate plans, systems, and other issues for improvement of performance in his practice.
2-2-H-Evidence – based discussion.	2-2-H- Present and defend his / her data in front of a panel of experts.
2-2-I-Decision aking in different situations related to *Rheumatology, Rehabilitation & Physical Medicine* fields.	2-2-I- Formulate management plans and alternative decisions in different situations in the field of the*Rheumatology, Rehabilitation & Physical Medicine*.

Continuous (ARS)	continuous LOs)
2-3- Clinical skills: 2-3-A- MD students must be able to provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health extensive level means in depth understanding and from basic science to evidence – based clinical application and possession of skills to manage independently all problems in his field of practice. 2-3-B- Master patient care skills relevant to *Rheumatology, Rehabilitation & Physical Medicine* for patients with all diagnoses and procedures.	*2/3/1/Prac cal skills (Pa ent care :)* 2-3-1-A- Provide extensive level of patient care that is compassionate, appropriate, and effective for the treatment of health problems and the promotion of health. *p.s.* Extensive level means in-depth understanding from basic science to evidence – based clinical application and possession of skills to manage independently all problems in field of practice. 2-3-1-B- Provide extensive level of patient care for patients with all common diagnoses and for uncomplicated procedures related to *Rheumatology, Rehabilitation & Physical Medicine*. 2-3-1-C- Provide extensive level of patient care for non-routine, complicated patients and under increasingly difficult circumstances, while demonstrating compassionate, appropriate and effective care. 2-3-1-D- Perform diagnostic and therapeutic procedures considered essential in the field of *Rheumatology, Rehabilitation & Physical Medicine* 2-3-1-E- Handles unexpected complications, while demonstrating compassion and sensitivity to patient needs and concerns. 2-3-1-F- Communicate effectively and demonstrate caring and respectful

	behaviors when interacting with patients and their families in the *Rheumatology, Rehabilitation & Physical Medicine* related situations. 2-3-1-G- Gather essential and accurate information about patients of the *Rheumatology, Rehabilitation & Physical Medicine* related conditions. 2-3-1-H Make informed decisions about diagnostic and therapeutic interventions based on patient information and preferences, up-to-date scientific evidence and clinical judgment for the *Rheumatology, Rehabilitation & Physical Medicine* related conditions. 2-3-1-I- Develop and carry out patient management plans for *Rheumatology, Rehabilitation & Physical Medicine* related conditions. 2-3-1-J- Counsel and educate patients and their families about *Rheumatology, Rehabilitation & Physical Medicine* related conditions. 2-3-1-K- Use information technology to support patient care decisions and patient education in all *Rheumatology, Rehabilitation & Physical Medicine* related clinical situations. 2-3-1-L- Perform competently all medical and invasive procedures considered essential for the *Rheumatology,*

	Rehabilitation & Physical Medicine related conditions / area of practices. 2-3-1-M- Provide health care services aimed at preventing the *Rheumatology, Rehabilitation & Physical Medicine* related health problems. 2-3-1-N- Lead health care professionals, including those from other disciplines, to provide patient-focused care in *Rheumatology, Rehabilitation & Physical Medicine* related conditions.
2-3-C- Write and evaluate reports for situations related to the field of *Rheumatology, Rehabilitation & Physical Medicine*.	2-3-1-O- Write competently all forms of patient charts and sheets including reports evaluating these charts and sheets.(Write and evaluate a consultation note, Inform patients of a diagnosis and therapeutic plan, completing and evaluating comprehensive timely and legible medical records).
2-4- General skills 2-4-A- Master 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	*2/3/2 General skills* 2-3-2-A- Demonstrate the competency of continuous evaluation of different types of care provision to patients in the different area of *Rheumatology, Rehabilitation & Physical Medicine.* 2-3-2-B- Appraise scientific evidence. 2-3-2-C- Continuously improve patient care based on constant self-evaluation and life-long learning.

	2-3-2-D. Participate in clinical audit and research projects. 2-3-2-E- Practice skills of evidence-based Medicine (EBM). 2-3-2-G- Design logbooks. 2-3-2-H- Design clinical guidelines and standard protocols of management. 2-3-2-I- Appraise evidence from scientific studies related to the patients' health problems.
2-4-B- Use competently all information sources and technology to improve his practice.	2-3-2-J- Apply knowledge of study designs and statistical methods to the appraisal of clinical studies. 2-3-2-K- Use information technology to manage information, access on-line medical information; for the important topics.
2-4-C- Master skills of teaching and evaluating others.	2-3-2-F- Educate and evaluate students, residents and other health professionals.
2-4-D- Master interpersonal and communication Skills that result in effective information exchange and teaming with patients, their families, and other health professionals.	2-3-2-L- Master interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, their families, and health professionals, including:- • Presenta case. • Write a consultation note. • Inform patientsof a diagnosis and therapeutic plan Completing and maintaining comprehensive. • Timely and legible medical records. • Teamwork skills. 2-3-2-M- Create and sustain a therapeutic and ethically sound relationship with patients.

	2-3-2-N- Elicit and provide information using effective nonverbal, explanatory, questioning, and writing skills. 2-3-2-O- Work effectively with others as a member or leader of a health care team or other professional group.
2-4-E- Master Professionalism behavior, as manifested through a commitment to carrying out professional responsibilities, adherence to ethical principles, and sensitivity to a diverse patient population.	2-3-2-P- Demonstrate respect, compassion, and integrity; a responsiveness to the needs of patients and society. 2-3-2-Q- Demonstrate a commitment to ethical principles including provision or withholding of clinical care, confidentiality of patient information, informed consent, and business practices. 2-3-2-R- Demonstrate sensitivity and responsiveness to patients' culture, age, gender, and disabilities.
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- Participate in improvement of the education system.	2-3-2-S- Work effectively in health care delivery settings and systems related to *Rheumatology, Rehabilitation & Physical Medicine* including good administrative and time management. 2-3-2-T- Practice cost-effective health care and resource allocation that does not compromise quality of care. 2-3-2-U- Advocate for quality patient care and assist patients in dealing with system complexities. 2-3-2-V- Design, monitor and evaluate

	specification of under and post graduate courses and programs.
2-4-H- Demonstrate skills of leading scientific meetings including time management	2-3-2-W- Act as a chair man for scientific meetings including time management 2-3-2-S- Work effectively in health care delivery settings and systems related to *Rheumatology, Rehabilitation & Physical Medicine* including good administrative and time management.
2-4-O- Demonstrate skills of self and continuous learning .	From A to H

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
Course 1 : Medical sta s cs and computer	د				
Course 2 : Research Methods	د				
Course 3 : Medical reports and medical ethics		د			
Course 4 : “Rheumatology, Rehabilitation & Physical Medicine”	د	د د	د د د		

Intellectual

Course	Program covered ILOs								
	2/2/A	2/2/B	2/2/C	2/2/D	2/2/E	2/2/F	2/2/G	2/2/H	2/2/I
Course 1 : Medical statistics and computer		د	د				د		
Course 2 : Research Methods		د	د				د		
Course 3 : Medical reports and medical ethics							د		
Course 4 : "Rheumatology, Rehabilitation & Physical Medicine"	د	د	د	د	د	د	د	د	د

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/
Course 1 : Medical statistics and computer								
Course 2 : Research Methods								
Course 3 : Medical reports and medical ethics			٥		٥			
Course 4 : " Rheumatology, Rehabilitation & Physical Medicine"	٥ ٥	٥ ٥ ٥	٥ ٥ ٥					

Course	Program covered ILOs						
	2/3/1/I	2/3/1/J	2/3/1/K	2/3/1/L	2/3/1/M	2/3/1/N	2/3/1/0
Course 1 : Medical statistics and computer							
Course 2 : Research Methods							
Course 3 : Medical reports and medical ethics	٥				٥		
Course 4 :" Rheumatology, Rehabilitation & Physical Medicine"	٥ ٥	٥ ٥ ٥	٥ ٥				

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/
Course 1 : Medical statistics and computer	،							
course 2 : Research Methods	، ، ،							
course 3 : Medical reports and medical ethics								
Course 4 : " Rheumatology, Rehabilitation & Physical Medicine"	، ،	، ، ، ، ،	، ،					

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	2/3/2/P
Course 1 : Medical statistics and computer	، ،							
course 2 : Research Methods	، ،							
course 3 : Medical reports and medical ethics				،				
Course 4 : " Rheumatology, Rehabilitation & Physical Medicine"	،	،	،	،	،	،	،	،

General Skills

Course	Program covered ILOs						
	2/3/2/Q	2/3/2/R	2/3/2/S	2/3/2/T	2/3/2/U	2/3/2/V	2/3/2/W
Course 1 : Medical statistics and computer							
Course 2 : Research Methods							
Course 3 : Medical reports and medical ethics							
Course 4 : " Rheumatology, Rehabilitation & Physical Medicine"	د د	د	د د د	د			

Annex 7,
Additional information:

Department information

Equipments and Specialized Units:

- Rheumatology patient' wards: 20 beds.
- Daily 2 Rheumatology out patients' clinics (new patients, follow up post discharge appointments).
- Muskeloskeletal ultrasonography unit.
-Neurophysiological study 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 out patient clinic data.

Staff members

Head of the Department: Dr. fatma hussien hassan

Staff members

Dr. Loay Ibrahim Elsaeed

Opportunities within the department

- Rheumatology patient' wards: 20 beds.
- Daily 2 Rheumatology out patients' clinics (new patients, follow up post discharge appointments).
- Muskeloskeletal ultrasonography unit.
-Neurophysiological study unit.
-Rehabilitation unit.
- Scientific Library
- Seminar room with data show
- Electronic Library of Scientific Seminars, case presentations.
- Data base filing of all the cases, procedures and out patient clinic data.

Department quality control insurance for completing the program

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

(End of the program specifications)