Al – Azhar University
Faculty of Medicine for Boys
Cairo

Postgraduate Studies

Master Degree in Rheumatology, Physical medicine and Rehabilitation

Program Code: (07-700-Rheu-Dp)

Program Guide

TABLE OF CONTENTS:
<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>I – Welcome Statement</td>
<td></td>
</tr>
<tr>
<td>II - Vision and Mission statements.</td>
<td></td>
</tr>
<tr>
<td>III – Head of the department and affiliated departments and hospitals</td>
<td></td>
</tr>
</tbody>
</table>
| IV – Program specifications: | 1. Basic Information.  
2. Specialized Information.  
3. Program structure and contents.  
4. Program admission requirements and rules:  
5. Program courses:  
6. Appendix course specifications  
   Rheumatology, Physical medicine and Rehabilitation course specifications |
| V- Master thesis | |
| VI -Candidate log book | |
| VII-Regulation for progression and program completion | |
| VIII- Method and rules for assessment for attendance of the course | |
I – Welcome Statement:

The Department of Rheumatology, Physical medicine and Rehabilitation welcomes you to the Master degree of Rheumatology, Physical medicine and Rehabilitation. As a department, we are committed to medical student teaching and continuously strive to improve your learning experience. This handbook presents information guide and logbook activity of this degree administered by the Rheumatology, Physical medicine and Rehabilitation medicine Department, Faculty of Medicine, Al-Azhar University.

II - Vision and Mission statements:

Vision: The overall undergraduate and postgraduate students in faculty of medicine Al-Azhar University is to contribute to the main stream of Rheumatology, Physical medicine and Rehabilitation education in Egypt to produce graduate able to function competently according to the accepted national and international standards and in unique in being culturally sensitive.

Mission: We are working as a one team to develop outstanding clinician practitioner and researcher capable of applying national and international standards of medical care and following medical ethics. Also to produce skilled health care oriented in fields of Rheumatology, Physical medicine and Rehabilitation capable of providing optimum care for sick patients at ambulatory and inpatient level also to keep daily living activities of patients.

Al-Azhar University awards the Master degree of Rheumatology, Physical medicine and Rehabilitation as a postgraduate academic degree and as a specialty training degree for physicians. The Master degree comprises taught courses, a research thesis and a final exam qualifying for registration as a specialist in of Rheumatology, Physical medicine and Rehabilitation in the Egyptian Medical Syndicate.
III – Head of the department and Affiliated Departments and Hospitals:
* Head of the department: Prof. D/ Mohamed Bastawy.

* Affiliated Departments and Hospitals: Departments of Rheumatology, Physical medicine and Rehabilitation at Al-Azhar University Hospitals (El-Hussein and Sayed Galal university hospitals).

IV- Program Specifications:
A- Basic Information:
1. Program title: Rheumatology, Physical medicine and Rehabilitation master.
3. Department producing the program: Rheumatology, Physical medicine and Rehabilitation department.

B- Specialized information:
1. General objective of the program:
The program will provide students with basic and advanced knowledge and skills through:
   1. Describe the physiology, anatomy, and pathology of the musculoskeletal system.
   2. Knows the anatomy, pathophysiology and clinical features of different rheumatic diseases.
   3. Analyze and interpret the common diagnostic tools in the rheumatic disorders.
   4. Knows his role in the development of the society and environmental safety.
   5. Develop the necessary knowledge and skills to approach and manage the wide array of rheumatic disorders.
   6. Perform a detailed and an efficient history taking and clinical examination.
   7. Carry out the diagnosis and plan the treatment of the commonly encountered rheumatic disorders and emergencies in a compassionate appropriate and effective manner.
   8. Work effectively within a team and implement liaison with members of the other medical specialties.
   9. Learn independently and use the medical literature to improve the clinical practice.
   10. Develop the necessary skills for finding scientific information, critical appraisal of medical literature and scientific writing.
   11. Knows the principles and tools of the scientific research and its applications.
12. Communicate properly and able to be a leadership in work groups.
13. Proper decision making in an ethical and faithfulness way.
15. Knows his role in the development of the society and to serve the environment.
16. Use of the available facilities and resources to gain the highest benefit.

2. Intended Learning Outcomes from the program:

A. Knowledge and understanding:

By the end of this course, all the postgraduate students will acquire knowledge to:

A1 - Recognize the basic facts of the medical physiology, anatomy, and pathology related to the musculoskeletal disorders.

A2 - Knows the pathophysiology and clinical features of different rheumatic diseases.

A3 - Identify the risk factors, pathogenesis and clinical picture of the different rheumatic diseases, related internal medicine disorders and emergencies.

A4 - Describe the recent diagnosis and treatment of commonly encountered rheumatic diseases, related internal medicine disorders and emergencies.

A5 - Identify the fundamentals of medical ethics and legal rules in the diagnosis and management of the different rheumatic diseases.

A6 - Knows the basics and ethics of scientific research.

A7 - Recognize the principles and basics of the quality standards in management of the different rheumatic diseases.

A8 - Identify the mutual relation between professional practice and effects on environment.

A9 - Describe the main scientific advances in the field of the rheumatic diseases and related internal medicine disorders.

B. Intellectual Skills:

By the end of the program the candidate will be able to:

B1. Interpret, analyze and evaluate the information of medical physiology, anatomy, community medicine and pathology to solve problems associated with rheumatic diseases.
B2. Solve some problems associated with rheumatic diseases that do not conform to classic data (incomplete data).

B3. Interpret, analyze and evaluate the information of medical physiology, anatomy, community medicine and pathology to solve problems associated with related internal medicine disorders and emergencies.

B4. Solve some problems associated with related internal medicine disorders and emergencies that do not conform to classic data (incomplete data).

B5. Integrate different information to solve professional problems.

B6. Conduct a scientific research and write scientific systematic approach to a research problem (hypothesis) in the field of rheumatic diseases.

B7. Evaluate risks imposed during professional practice.

B8. Plan for professional improvement.

B9. Take professional decisions in wide range of professional situations.

B10. Apply the principles and tools of the scientific research and its applications.

C. Professional and Practical Skills:

By the end of the course the postgraduate student will be able to be:

C1 Perform a detailed microscopic and gross picture examination to elicit and identify correctly the different pathological lesions, in patients with rheumatic disorders.

C2 Carry out a detailed microscopic and biochemical reaction examination to elicit and identify correctly the different rheumatic disorders.

C3 Perform a detailed microscopic and gross picture examination to identify correctly the different autoimmune lesions that can affect humans.

C4 Perform a detailed history taking and clinical examination to elicit and identify correctly the full range of symptoms and signs, in patients with rheumatic disorders.

C5 Perform a detailed history taking and clinical examination to elicit and identify correctly the full range of symptoms and signs, in patients with related internal medicine disorders and emergencies.

C6 Carry out the diagnosis and list the differential diagnosis and investigations in an efficient way and perform a detailed description about the different rheumatic disorders that affect the community.
1- EMG : Evaluate and prepare the patient and determined the examined area which be examine(nerve conduction studies, Late responses and EMG).
2- DEXA machine: for diagnosis of osteoporosis.

_Elicit rheumatology diagnosis by using:_
- i-EMG
- ii-DEXA

C7 Construct a plan for prevention and control measures for the important epidemiological diseases and hazards that affect the community and plan for management using the full range of current and recent pharmacological and non-pharmacological treatment for the different rheumatic disorders.

C8 Construct a plan for management using the full range of current and recent pharmacological and non-pharmacological treatment for the related internal medicine disorders and emergencies.

C9 Write and appraise reports in the field of rheumatic diseases.

C10 Evaluate statistical methods and tools used in the field of hepatology, gastroenterology and infectious diseases.

_D. General and transferable skills:_

By the end of the course the postgraduate student will be able to:

- **D1** Develop the communication and interpersonal skills necessary to communicate effectively with other medical members, patients and their families.
- **D2** Use information technology to improve professional practice.
- **D3** Practice self appraisal and determines his learning needs.
- **D4** Share in determination of standards for evaluation of others (e.g.; subordinates/trainees etc.).
- **D5** Use different sources of information to obtain the recent knowledge for proper and safe practice.
- **D6** Work effectively within an multidisciplinary team and implement liaison with members of other specialties.
- **D7** Manage time properly and effectively.
- **D8** Work as team leader in situations comparable to his work level.
D9 Learn independently and seek continuous learning.

3- **Program structure and contents:**

3A- Program duration: 24 months.

3B- Program structure:

<table>
<thead>
<tr>
<th>Code</th>
<th>Course Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>07-70-Rheu-Dp</td>
<td>1. Observational and Clinical Skills</td>
</tr>
<tr>
<td>07-700-Rheu-Dp-Dp</td>
<td>2. Examination and Diagnosis</td>
</tr>
<tr>
<td>07-700-Rheu-Phs-Dp</td>
<td>3. Pathological Medicine</td>
</tr>
<tr>
<td>07-700-Rheu-Int-med-Dp</td>
<td>4. General Practice</td>
</tr>
<tr>
<td>07-700-Rheu-Dp</td>
<td>1. Observational and Clinical Skills</td>
</tr>
</tbody>
</table>

4. **Academic standards of the program:**

National Authority for Quality Assurance and Accreditation of Education (NAQAAE).

External reference for standards (Benchmarks) MRCP.

American and Canadian board.
Faculty of Medicine – Al-Azhar university.

Course specifications:
Program on which the course is given: Master degree in Rheumatology, physical medicine and rehabilitation.

Major or minor element of programs: Major.

Department offering the program: Rheumatology, physical medicine and rehabilitation. department.

Department offering the course: Rheumatology, physical medicine and rehabilitation. department.

A- Basic Information:

Title: Rheumatology, physical medicine and rehabilitation. department. course.

Code: 07-700-rheu-Ms

Lecture: 8 h/week Clinical: 8 h/week Total: 222 h

Coordinator: Rheumatology, physical medicine and rehabilitation. department.

Course admission requirements:
Hold the first part in Rheumatology, physical medicine and rehabilitation. department. from Al-Azhar University.

B - Professional Information:

1. General objective of the course:

   1. Skills in managing patients with rheumatic diseases including problem solving, decision making and operative skills by understanding the symptoms and signs of Rheumatic diseases
   2. Understanding the symptoms and signs of the rheumatic system.
   3. Understanding the appropriate use and interpretation of common diagnostic studies.
   4. Development of the necessary knowledge and skills to approach and manage the wide array of rheumatic disorders.
   5. Effectively perform a detailed and an efficient history taking and clinical examination in cases of rheumatic disorders.
   6. Ability to carry out the diagnosis, differential diagnosis and plan the recent treatment of the commonly encountered rheumatic disorders and emergencies in a compassionate appropriate and effective manner.

2. Intended Learning Outcomes from the course:
A. Knowledge and understanding:

By the end of this course, all the postgraduate students will acquire knowledge to:

A1 - Identify the risk factors, pathogenesis and clinical picture of the rheumatic diseases.
A2 - Describe the recent diagnosis and treatment of commonly encountered rheumatic diseases.
A3 - Identify the fundamentals of medical ethics and legal rules in the diagnosis and management of the different rheumatic diseases.
A4 - Knows the basics and ethics of scientific research.
A5 - Recognize the principles and basics of the quality standards in management of the different rheumatic diseases.
A6 - Identify the mutual relation between professional practice and effects on environment.
A7 - Describe the main scientific advances in the field of rheumatic diseases.

B. Intellectual Skills:

By the end of the course the candidate will be able to:

B1. Solve some problems associated with rheumatic diseases that do not conform to classic data (incomplete data).
B2. Integrate different information to solve professional problems.
B3. Conduct a scientific research and write scientific systematic approach to a research problem (hypothesis) in the field of rheumatic diseases.
B4. Evaluate risks imposed during professional practice.
B5. Plan for professional improvement.
B6. Take professional decisions in wide range of professional situations.
B7. Apply the principles and tools of the scientific research and its applications.

C. Professional and Practical Skills:

By the end of the course the postgraduate student will be able to:

C1 Perform a detailed history taking and clinical examination to elicit and identify correctly the full range of symptoms and signs, in patients with rheumatic disorders.
C2 Carry out the diagnosis and list the differential diagnosis and investigations in an efficient way.
1- EMG: Evaluate and prepare the patient and determine the examined area which be examine (nerve conduction studies, late responses and EMG).
2- DEXA machine: for diagnosis of osteoporosis.
3- Musculoskeletal Ultrasound

Elicit rheumatology diagnosis by using:
   i- EMG
   ii- DEXA
   iii- Musculoskeletal ultrasound

C3 Construct a plan for management using the full range of current and recent pharmacological and non-pharmacological treatment for the different rheumatic disorders.
C4 Write and appraise reports in the field of rheumatic diseases.
C5 Evaluate methods and tools used in the field of rheumatic diseases.

D. General Skills:
By the end of the course the postgraduate student will be able to:

D1 Develop the communication and interpersonal skills necessary to communicate effectively with other medical members, patients and their families.
D2 Use information technology to improve professional practice.
D3 Practice self appraisal and determines his learning needs.
D4 Share in determination of standards for evaluation of others (e.g.; subordinates/trainees etc.).
D5 Use different sources of information to obtain the recent knowledge for proper and safe practice.
D6 Work effectively within an multidisciplinary team and implement liaison with members of other specialties.
D7 Manage time properly and effectively.
D8 Work as team leader in situations comparable to his work level.
D9 Learn independently and seek continuous learning.

3. Course contents:
### AL-AZHAR UNIVERSITY
**FACULTY OF MEDICINE**

**AL Hussein Hospital**

**Rheumatology and Rehabilitation Department**

<table>
<thead>
<tr>
<th>Topic Title</th>
<th>Lectures</th>
<th>Practical / Clinical</th>
<th>Others such as tutorials</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Infectious diseases.</td>
<td>80 hours</td>
<td>50 hours</td>
<td></td>
</tr>
<tr>
<td>2. Hepatology &amp; Gastro-enterology.</td>
<td>27 hours</td>
<td>17 hours</td>
<td></td>
</tr>
<tr>
<td>3. Special courses</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>• Research methodology</td>
<td>2 hours</td>
<td></td>
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<tr>
<td>• Evidence based medicine</td>
<td>2 hours</td>
<td></td>
<td></td>
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<tr>
<td>• Medical statistics</td>
<td>2 hours</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Medical ethics</td>
<td>2 hours</td>
<td></td>
<td></td>
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<tr>
<td>• Communication skills</td>
<td>2 hours</td>
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<tr>
<td>Total</td>
<td>127 hours</td>
<td>67 hours</td>
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4- Teaching and Learning Methods:

1- Lectures: white board, Computers, Data show, overhead projector and CDs. Four hours per week throughout the course.
2- Self learning. 3- Open discussion and group discussion.
4- Case discussion. 5- Seminar attendance.
6- Thesis discussion attendance.

**Lectures:**

The students will have the lectures in the lecture hall in the 1st floor of El-Hussein and Sayed Galal university hospitals, Tropical medicine department on Sundays and Wednesdays.

**Practical/Clinical:** Total 4 hrs/week in the Tropical Medicine department inpatient wards.

5. **Student assessment methods:**
   5.1 Written exam
   5.2 Clinical exam
   5.3 Oral exam
   5.4 Practical exam

5. **List of references:**
   2- Clinical Rheumatology-ISSN: 0770-3198 (Print) 1434-9949 (Online)
   3- Primer on the Rheumatic Diseases (Primer on Rheumatic Diseases (Klippel)) Paperback – July 29, 2008

**External reference** (Rheumatology-Acolor HandBook). It is present online:
http://www.medicineazhar.edu.eg/rhema-dept.html

<table>
<thead>
<tr>
<th>التقرير النصف سنوي للرسائل العلمية</th>
<th>لطلبة الماجستير و الدكتوراه</th>
</tr>
</thead>
<tbody>
<tr>
<td>التقرير النصف سنوي لعام/</td>
<td></td>
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<tr>
<td>عن الطالب/</td>
<td></td>
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<tr>
<td>المقابل لدرجة (الماجستير / الدكتوراه).</td>
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<tr>
<td>لا ينهي</td>
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<tr>
<td>أوشك على الانتهاء</td>
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<td>قطع شوطا محدودا</td>
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<td>بدأ</td>
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<tr>
<td>جمع المادة العلمية</td>
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<tr>
<td>و كتابة المقدمة</td>
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<td>الجزء النظري</td>
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<td>الجزء العملي</td>
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<tr>
<td>مناقشة النتائج</td>
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<tr>
<td>المراجعات النهائية</td>
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</tbody>
</table>
The candidate must present a seminar for the final thesis after completion to the Tropical medicine staff members before discussion of the thesis and they must approve it.

The thesis should be evaluated and approved by a committee of three professors including one of the supervisors and an external professor.

VI – Candidate log book:

1- The candidate logbook will be delivered from the Tropical medicine department.
2- All attained activities must be registered in the log book including attendance of lectures, clinical rounds, case discussions, scientific days, department conference day, the round tables, outpatient clinic, seminars, emergency department and the scientific meetings.
3- Any attained activities must be recorded and signed out by the medical supervisor.

VII- Regulations for progression and program completion:

1- Attendance Criteria: minimum acceptance attendance in each course is 75%.
2- Log book should be fulfilled and signed by coordinator of the Master degree and Head of the department.
3- Spent at least one year attached to the department attending the lectures, clinical rounds, the scientific days, the department conference day, the round tables and the scientific meetings.
VIII- Method and rules for assessment for attendance:

<table>
<thead>
<tr>
<th>Method</th>
<th>% of total</th>
<th>What to measure of ILOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Written exam</td>
<td>40</td>
<td>Understanding and knowledge</td>
</tr>
<tr>
<td>2- Clinical exam</td>
<td>20</td>
<td>Intellectual skills, understanding /knowledge</td>
</tr>
<tr>
<td>3- Oral exam</td>
<td>20</td>
<td>Professional and general skills</td>
</tr>
<tr>
<td>4- OSCE</td>
<td>20</td>
<td>Professional and intellectual skills</td>
</tr>
<tr>
<td>Total</td>
<td>100 %</td>
<td></td>
</tr>
</tbody>
</table>

IX- Head of department approval for the exam entry

The council of the Department of Rheumatology, Physical medicine and Rehabilitation held on 1/10/2016 was assured that the candidate has fulfilled the requirements needed for the exam entry and the candidate is now eligible for the exam entry.

Coordinator of the program: Lecturer/ Mohamed Abdelkareem.
Head of the department: Prof. D./ Khaled Zaky