PROGRAM SPECIFICATION

Sohag University    Faculty of Medicine

A. Basic Information
1. Program title: Master in Physical Medicine, Rheumatology and Rehabilitation
2. Program type: Single
3. Department: Rheumatology and Rehabilitation.
4. Coordinator: Dr. Mohammed Ali Esmail
5. Assistant Coordinator: Ahmed Roshdy Al-Agamy Radwan.
6. External evaluator: Prof. Tayseer Mohammed Khedr
7. Last date of program specifications approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

B. Professional Information
1. Program aims
   The aim of this program is to provide the postgraduate student with the medical knowledge and skills essential for the practice of specialty and necessary to gain further training and practice in the field of Physical Medicine, Rheumatology and Rehabilitation through providing:
   1. Scientific knowledge essential for practice of Physical Medicine, Rheumatology and Rehabilitation according to the international standards.
   2. Skills necessary for proper diagnosis and management of patients in the field of Physical Medicine, Rheumatology and Rehabilitation including diagnostic, problem solving and decision making skills.
   3. Ethical principles related to the practice in this specialty.
   4. Active participation in community needs assessment and problems solving.
   5. Maintenance of learning abilities necessary for continuous medical education.
   6. Maintenance of research interest and abilities.

2. Intended learning outcomes (ILOs)
a- Knowledge and understanding
   By the end of the study of Master program in rheumatological the Graduate should be able to:
   a-1 Know the normal structure and function of the musculoskeletal and neuromuscular systems of the human body
   a-2 Understand the abnormal structure, function, growth and development of the musculoskeletal and neuromuscular systems of the human body.
   a-3 Have sound knowledge on the basics of the immune system.
   a-4 Understand the physiology of muscle and nerve and the physiology of central nervous system
   a-5 Mention the nature of pain and pain control systems
   a-6 Mention theories, fundamentals and knowledge in the field of Rheumatology specialty and related fields.
   a-7 Describe the pathology, clinical symptoms and complications of each rheumatological disease.
   a-8 Mention theories, modalities and recent knowledge in the field of Physical Medicine and Rehabilitation specialty.
a-9 Understand the sex, age and ethnic differences for different rheumatological diseases
a-10 Know the differential diagnosis of rheumatological diseases.
a-11 Mention the various therapeutic methods/alternatives used for rheumatological diseases
a-12 Know the definition and types of handicap.
a-13 Enumerate and Define the different physical modalities and their uses and contraindications.
a-14 Follow the scientific developments in the field of Physical Medicine, Rheumatology and Rehabilitation
a-15 Understand the mutual influence between professional practice and its impacts on the environment.
a-16 Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation
a-17 Know the principles and fundamentals of quality of professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation
a-18 Have an idea about the basics and ethics of scientific research.

b- Intellectual skills
By the end of the study of Master program in rheumatological the Graduate should be able to:

b-1 Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
b-2 Interpret data acquired through history taking to reach a provisional diagnosis.
b-3 Assess the function of the motor system
b-4 Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.
b-5 Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.
b-6 Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Physical Medicine, Rheumatology and Rehabilitation.
b-7 Link between knowledge for Professional problems' solving.
b-8 Conduct a research study and / or write a scientific study on a research problem.
b-9 Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation
b-10 Plan to improve performance in the field of Physical Medicine, Rheumatology and Rehabilitation
b-11 Identify Rheumatologic and Rehabilitational Problems and find solutions.
b-12 Analyze researches and issues related to the Physical Medicine, Rheumatology and Rehabilitation.

c- Professional and practical skills
By the end of the study of Master program in rheumatological the Graduate should be able to:
c-1 Apply the basic and modern professional, clinical and medical skills in the area of Physical Medicine, Rheumatology and Rehabilitation
c-2 Perform complete history and full physical examination of rheumatic patients, and patients needing rehabilitation.
c-3 Interpret the results of diagnostic procedures.
c-4 Diagnose rheumatological illnesses.
c-5 Write a professional treatment prescription.
c-6 Write and evaluate medical reports.
c-7 Perform and evaluate methods and tools existing in the area of Physical Medicine, Rheumatology and Rehabilitation.
c-8 Deal with the possible complications of the diseases themselves or their treatments.
c-9 Apply rehabilitation program for the different varieties of disabilities.
c-10 Inject joints and soft tissues.
c-11 Use technological methods to serve the professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation.

d- General and transferable skills
By the end of the study of Master program in rheumatological the Graduate should be able to:

d-1 Communicate effectively by all types of effective communication.
d-2 Establish a good patient-physician relationship.
d-3 Coordinate with other specialities regarding management of some patients who need this coordination.
d-4 Use information technology to serve the development of professional practice.
d-5 Choose and use the suitable computer program packages.
d-6 Apply self-assessment methods and identify personal learning needs.
d-7 Use different sources for acquiring information and knowledge.
d-8 Teach others and evaluate their performance.
d-9 Develop rules and indicators to assess the performance of others.
d-10 Work as a part of a team and manage a group of people in a work environment.
d-11 Manage time efficiently.
d-12 Have the ability for continuous self-learning.

3. Academic standards
Sohag Faculty of Medicine adopted the general National Academic Reference Standards (NARS) provided by the National Authority for Quality Assurance and Accreditation of Education (NAQAEE) for postgraduate programs. This was approved by the Faculty Council decree No. 6854, in its session No. 177, dated 18/5/2009. Based on these NARS, Academic Reference Standards were suggested for this program. These ARS were approved by the Faculty Council decree No.7528, in its session No. 191, dated 15/3/2010.

4. Curriculum Structure and Contents
4.a- Program duration: 6 semesters (3 years)
4.b- Program structure:
4.b.i- No. of hours per week:

<table>
<thead>
<tr>
<th>Subject</th>
<th>No. of Hours/Week</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lecture</td>
</tr>
<tr>
<td><strong>First Part:</strong></td>
<td></td>
</tr>
<tr>
<td>Basic Sciences:</td>
<td></td>
</tr>
<tr>
<td>Anatomy</td>
<td>2</td>
</tr>
<tr>
<td>Physiology</td>
<td>2</td>
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</table>
### Second Part:

<table>
<thead>
<tr>
<th>Majors</th>
<th>No of units</th>
<th>No of hours/week</th>
<th>Program ILOs</th>
</tr>
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<tbody>
<tr>
<td>Rheumatic Diseases</td>
<td>3</td>
<td>-</td>
<td>a1, a2, a3, a4, a5, a6, a7, a8, a9, a10, a11, a12, a13, b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, c1, c2, c3, c4, c5, c6, c7, c8, c9, c10, c11, d1, d2, d3, d4, d5, d6, d7, d8, d9, d10, d11</td>
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<tr>
<td>Immunology</td>
<td>1</td>
<td>-</td>
<td>a1, a2, a3, a4, a5, a6, a7, a8, a9, a10, a11, a12, a13, b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, c1, c2, c3, c4, c5, c6, c7, c8, c9, d1, d2, d3, d4, d5, d6, d7, d8, d9, d10, d11</td>
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<tr>
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<td>1</td>
<td>1</td>
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<td>Rehabilitation Medicine</td>
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<td>1</td>
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</table>

### First Part:

#### a. Compulsory

<table>
<thead>
<tr>
<th>Course Title</th>
<th>No of units</th>
<th>No of hours/week</th>
<th>Program ILOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anatomy</td>
<td>4</td>
<td>2 2</td>
<td>a1, a9, a12, b3, c1, c10, d4, d6, d7</td>
</tr>
<tr>
<td>Physiology</td>
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<td>2 2</td>
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<tr>
<td>Neurology</td>
<td>4</td>
<td>2 2</td>
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<tr>
<td>Orthopaedic Surgery</td>
<td>4</td>
<td>2 2</td>
<td>a2, a6, b1, b4, b7, b9, c3, c9, d1, d2, d3</td>
</tr>
<tr>
<td>Applied Physics</td>
<td>4</td>
<td>2 2</td>
<td>a8, a13, b1, b10, b11, c7, c11, d4, d5, d8, d10, d11</td>
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</table>

### Second part:

#### a. Compulsory

<table>
<thead>
<tr>
<th>Course Title</th>
<th>No of units</th>
<th>No of hours/week</th>
<th>Program ILOs</th>
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</thead>
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<tr>
<td>Rheumatology</td>
<td>6</td>
<td>3 3</td>
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</tr>
<tr>
<td>Immunology</td>
<td>2</td>
<td>1 1</td>
<td>a3, a6, a10, b1, b6, b7, b10, b11, c3, c4, c6, d4, d5, d6, d7, d10, d12</td>
</tr>
<tr>
<td>Physical Medicine</td>
<td>3</td>
<td>1 1</td>
<td>a4, a8, a11, a13, a14, a15, a16, a17, b1, b3, b6, b7, b9, b10, b12, c1, c6, c7, c11, d2, d4, d6, d7, d10, d11</td>
</tr>
<tr>
<td>Rehabilitation Medicine</td>
<td>4</td>
<td>2 1</td>
<td>a5, a8, a9, a12, a14, a15, a15, a6, a17, a18, b1, b2, b3, b4, b5, b6, b7, b8, b9, b10, b11, b12, c1, c2, c3, c6, c7, c8, c9, c10, c11, d1, d2, d3, d4, d6, d7, d8, d9, d10, d11</td>
</tr>
</tbody>
</table>

### Program courses

All the 7 courses are compulsory.

### Program admission requirements

1. **General Requirements:**
   1. Candidates should have either:
      1. M.B.B.Ch Degree from any Egyptian Faculty of Medicine, or:
2. Equivalent Degree from Medical Schools abroad approved by the Ministry of Higher Education.
B. Candidate should complete the house office training year.
C. Those who are not university hospital residents should pass a training for at least 12 months in one of the known hospitals.
D. Follow postgraduate regulatory rules of Sohag Faculty of Medicine.

II) Specific Requirements:
A. Candidate graduated from Egyptian Universities should have at least "Good Rank" in their final years / cumulative years examination, and grade of "Good Rank" in the Internal Medicine Rank too.
B. Candidate should know how to speak & write English well.
C. Candidate should have computer skills.

7. Regulations for progression and program completion
Duration of program is 6 semesters (3 years), starting from registration till the 2nd part exam; divided to:

First Part: (≥6 months=1 semester):
1. Program-related basic and clinical sciences and Applied Physics courses.
2. At least six months after registration should pass before the student can ask for examination in the 1st part.
3. Two sets of exams: 1st in April — 2nd in October.
4. For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40 % of the written exam).
5. Those who fail in one curriculum need to re-exam it only.

Thesis/Essay:
1. Start after at least 6 months from registration and should be completed, defended and accepted at least after passing 6 months from documentation, and after passing the 1st part examination and at least one month before allowing to enter the 2nd part final examination.
2. Accepting the thesis is enough to pass this part.

Second Part: (≥24 months=4 semester):
1. Program related specialized science of Physical Medicine, Rheumatology and Rehabilitation courses and ILOs.
2. After passing at least:
   a. University hospital residents: 36 months residency in the department of Rheumatology and Rehabilitation.
   b. Residents in other places: 12 months training in the department of Rheumatology and Rehabilitation.
3. The student should pass the 1st part before asking for examination in the 2nd part.
4. Fulfillment of the requirements in each course as described in the template and registered in the log book is a prerequisite for candidates to be assessed and undertake part 1 and part 2 examinations; as following:
Grand rounds
Training courses
Conference attendance
Thesis discussion
Workshops
Journal club
Case presentation
Seminars
Morbidity and Mortality conference
Self education program

1. Two sets of exams: 1st in April – 2nd in October.
2. For the student to pass the second part exam, a score of at least 60% is needed (with at least 40% of the written exam).

8. Methods of Student assessment

<table>
<thead>
<tr>
<th>Method of assessment</th>
<th>The assessed ILOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Research assignment</td>
<td>-general transferable skills, intellectual skills</td>
</tr>
<tr>
<td>2-Written Exams:</td>
<td></td>
</tr>
<tr>
<td>-Short essay</td>
<td>-knowledge</td>
</tr>
<tr>
<td>-MCQs</td>
<td>-knowledge, intellectual skills</td>
</tr>
<tr>
<td>-Commentary</td>
<td>- intellectual skills</td>
</tr>
<tr>
<td>-Problem solving</td>
<td>-general transferable skills, intellectual skills</td>
</tr>
<tr>
<td>3-Practical Exams</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>4-OSPE</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>5-Clinical Exams.</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>6-OSCE</td>
<td>- Practical skills, intellectual skills</td>
</tr>
<tr>
<td>7-Oral Exams.</td>
<td>- knowledge</td>
</tr>
<tr>
<td>8-Structured Oral Exams</td>
<td>-- knowledge</td>
</tr>
</tbody>
</table>

9. Evaluation of program intended learning outcomes

<table>
<thead>
<tr>
<th>Evaluator</th>
<th>Tool</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- Senior students</td>
<td>Questionnaire</td>
<td>8</td>
</tr>
<tr>
<td>2- Alumni</td>
<td>Questionnaire</td>
<td>11</td>
</tr>
<tr>
<td>3- Stakeholders (Employers)</td>
<td>Questionnaire</td>
<td>30</td>
</tr>
<tr>
<td>4-External Evaluator(s) (External Examiner(s))</td>
<td>Report</td>
<td>1</td>
</tr>
<tr>
<td>5- Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PARAMETER</td>
<td>Agreement%</td>
<td></td>
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<tr>
<td>-------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td></td>
</tr>
<tr>
<td><strong>Program aims &amp; ILOs</strong></td>
<td></td>
<td></td>
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<tr>
<td>Did the Program helped you to acquire skills needed to diagnose and</td>
<td>79.5 acceptable 7.5 good</td>
<td></td>
</tr>
<tr>
<td>manage the patients</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the current Program give you the skills needed to reach a</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td>provisional diagnoses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are Program alumni motivated to increase their professional knowledge</td>
<td>49</td>
<td></td>
</tr>
<tr>
<td>and skills</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the teaching Program give the acceptable ethical behaviour</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Does the current Program motivate the alumni for continuous medical</td>
<td>75.5</td>
<td></td>
</tr>
<tr>
<td>education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do Program alumni perform good communication with their patients</td>
<td>69 acceptable</td>
<td></td>
</tr>
<tr>
<td>Do Program alumni have computer skills needed for their work.</td>
<td>78</td>
<td></td>
</tr>
<tr>
<td>Do Program alumni perform team work</td>
<td>98.5</td>
<td></td>
</tr>
<tr>
<td>Can Program alumni react well to emergency</td>
<td>95.5</td>
<td></td>
</tr>
<tr>
<td>Can Program alumni reach a satisfactory preliminary diagnosis</td>
<td>86.5</td>
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<tr>
<td>Can Program alumni choose the proper diagnostic methods</td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>Can Program alumni distinguish complicated cases above his own and</td>
<td>46.5</td>
<td></td>
</tr>
<tr>
<td>establishment abilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do Program alumni perform community health education</td>
<td>79.5</td>
<td></td>
</tr>
<tr>
<td>Do Program alumni show scientific interest to widen their knowledge and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>study for post graduate degrees</td>
<td>79</td>
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Course Specification of Anatomy in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University                  Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Anatomy and Embryology Department.
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information
Title: Anatomy
Total hours:

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Practical</th>
<th>Clinical</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>48</td>
<td>-</td>
<td>96</td>
</tr>
</tbody>
</table>

B. Professional Information
1. Overall Aims of Course
   By the end of the course the student should be able to have the have the professional knowledge about the anatomy of the upper limb, lower limb and vertebral column

2. Intended Learning Outcomes of Course (ILOs)
   a) Knowledge and Understanding:
      By the end of the course the student should be able to:
      a-1 Know the normal structure of the musculoskeletal and neuromuscular systems of the human body
      a-2 Understand the sex, age and ethnic anatomical differences.
      a-3 Know the definition and types of handicap and deformities.
   b) Intellectual skills:
      By the end of the course the student should be able to:
      b-1 Assess the integrity and function of the motor system
   c) Professional and Practical skills:
      By the end of the course the student should be able to:
      c-1 Apply the basic and professional anatomical skills in the area of Physical Medicine, Rheumatology and Rehabilitation
      c-2 Know the accurate surface marking and anatomical landmarks needed for injecting joints and soft tissue rheumatic disorders
   d) General and Transferrable skills:
      By the end of the course the student should be able to:
      d-1 Use information technology to serve the development of professional practice
      d-2 Apply self-assessment methods and identify personal learning needs.
      d-3 Use different sources for acquiring information and knowledge.
3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Practical</th>
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</thead>
<tbody>
<tr>
<td>Introduction</td>
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<td>5</td>
</tr>
<tr>
<td>Anatomy of the upper limb</td>
<td>24</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Anatomy of the vertebral column</td>
<td>10</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Anatomy of the back</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Anatomy of the lower limb</td>
<td>24</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>Anatomy of the spinal nerves</td>
<td>8</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Revision</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Hours</strong></td>
<td><strong>96</strong></td>
<td><strong>48</strong></td>
<td><strong>48</strong></td>
</tr>
</tbody>
</table>

4. Teaching and Learning Methods

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

5. Student Assessment Methods

5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   a. MCQs to assess Intellectual skills.
   b. Short essay to assess knowledge.
3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
4. Practical notebook to assess practical and general skills
5. Final written exam to assess knowledge and understanding.
6. Final commentary written exam to assess intellectual skills.
7. Final structured oral exam to assess knowledge and understanding.
8. Final Practical exam (OSPE) to assess practical skills.

5-2 Assessment Schedule

| Assessment 1 assignment 1 | Week 5 |
| Assessment 2 Periodic 1   | Week 10|
| Assessment 3 Periodic 2   | Week 15|
| Practical notebook        | Week 20|
| Assessment 4 Final Written exam | Week 24|
| Assessment 5 Final Oral exam | Week 24|
| Assessment 6 Final Clinical exam | Week 24|

5-3 Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
</tr>
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<tbody>
<tr>
<td>Final-written Examination</td>
<td>50%</td>
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<tr>
<td>Final Oral Examination.</td>
<td>20%</td>
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<tr>
<td>Final Clinical Examination</td>
<td>30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Formative only assessments include: Simple research assignments, attendance, observation, and periodic oral, written and clinical exams.

6. **List of References**
   6.1- Course Notes
      Lecture Notes prepared by the staff members in the Department.
   6.2- Essential Books (Text Books)
      Gray's Anatomy
   6.3- Recommended Books
   6.4- Periodicals, Web Sites, … etc

7. **7- Facilities Required for Teaching and Learning**
   1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
   2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
   3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

**Course Coordinator: Dr. Esam Salah Kamel.**

**Head of Department: Dr. Esam Salah Kamel.**

**Date: 12 /9/2009**
Course Specification of Physiology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University                         Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physiology Department.
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information
Title: Physiology                 Code: 
Total hours:

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</thead>
<tbody>
<tr>
<td>48</td>
<td>48</td>
<td>-</td>
<td>96</td>
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</table>

B. Professional Information
1. Overall Aims of Course
   to prepare a Rheumatology & rehabilitation physician oriented with the physiology of muscle and nerve, also that of C.N.S &endocrine physiology. in addition, graduates should have enough knowledge about the regulation of body temperature, body fluids, homeostasis & haemostasis.
2. Intended Learning Outcomes of Course (ILOs)
   a) Knowledge and Understanding:
      By the end of the course the student should be able to:
      a-1 Know the normal function of the musculoskeletal and neuromuscular systems of the human body
      a-2 Understand the physiology of muscle and nerve and the physiology of central nervous system
      a-3 Mention the nature of pain and pain control systems.
   b) Intellectual Skills:
      By the end of the course the student should be able to:
      b-1 Assess the function of the motor system
      b-2 Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.
      b-3 Choose and apply the suitable diagnostic tests to assess the neuromuscular Physiological changes in different diseases
   c) Professional and Practical Skills:
      By the end of the course the student should be able to:
      c-1 Apply the basic and professional Physiological skills in the area of Physical Medicine, Rheumatology and Rehabilitation
      c-2 Interpret the results of diagnostic procedures concerning the neuromuscular physiology.
   d) General and Transferrable Skills:
By the end of the course the student should be able to:
d-1 Use information technology to serve the development of professional practice
d-2 Apply self-assessment methods and identify personal learning needs.
d-3 Use different sources for acquiring information and knowledge.

3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
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<th>Practical</th>
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<tr>
<td>The physiology of central nervous system</td>
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<tr>
<td>The physiology of muscle and nerve</td>
<td>36</td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Regulation of body temperature</td>
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<tr>
<td>Body fluids, electrolytes &amp; oedema</td>
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<tr>
<td>Haemostasis &amp; its defects</td>
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<td>Total Hours</td>
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</table>

4. Teaching and Learning Methods

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

5. Student Assessment Methods

5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   a. MCQs to assess Intellectual skills.
   b. Short essay to assess knowledge.
3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
4. Practical notebook to assess practical and general skills
5. Final written exam to assess knowledge and understanding.
6. Final commentary written exam to assess intellectual skills.
7. Final structured oral exam to assess knowledge and understanding.
8. Final Practical exam (OSPE) to assess practical skills.

5-2 Assessment Schedule

| Assessment 1 assignment 1       | Week 5       |
| Assessment 2 Periodic 1         | Week 10      |
| Assessment 3 Periodic 2         | Week 15      |
| Practical notebook              | week 20      |
| Assessment 4 Final Written exam | Week 24      |
| Assessment 5 Final Oral exam    | Week 24      |
| Assessment 6 Final Clinical exam| Week 24      |

5-3 Weighting of Assessments
Final-written Examination       50 %
Final Oral Examination.        20 %
Final Clinical Examination  30 %

Total                      100%

Formative only assessments include: Simple research assignments, attendance, observation, and periodic oral, written and clinical exams.

6. **List of References**
   6.1- Course Notes
       Lecture Notes prepared by the staff members in the Department.
   6.2- Essential Books (Text Books)
       Gyton textbook of physiology

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

Course Coordinator: Prof. Minerva Fahmy Kamel

Head of Department: Nawal Badawi Ali

Date: 12/9/2009
Course Specification of Neurology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University  Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation

2. Major or Minor element of programs: Minor

3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.

4. Department offering the course: Neuropsychiatry Department.

5. Academic year / Level: 1st part.

6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information

Title: Neurology  
Code: 

Total hours: 

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<tbody>
<tr>
<td>48</td>
<td>-</td>
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<td>96</td>
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</tbody>
</table>

B. Professional Information

1. Overall Aims of Course

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

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

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

a-1 Know the normal function of the neuromuscular systems of the human body

a-2 Understand the abnormal function of the neuromuscular systems of the human body.

a-3 Understand the physiology of muscle and nerve and the physiology of central nervous system

a-4 Mention the nature of pain and pain control systems

b) Intellectual Skills:

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

b-1 Analyze and evaluate neurological data and information and use it in the field of Physical Medicine, Rheumatology and Rehabilitation.

b-2 Assess the function of the motor system

b-3 Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.

b-4 Link between knowledge for Professional problems' solving.

b-5 Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation

c) Professional and Practical Skills:

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

c-1 Interpret the results of diagnostic EMG and NCV.
c-2 Apply rehabilitation programs for different neurological handicaps.

d) **General and Transferrable Skills:**
By the end of the course the student should be able to:
- d-1 Communicate effectively by all types of effective communication.
- d-2 Establish a good patient-physician relationship.
- d-3 Communicate effectively with colleagues from neurology specialty to achieve the maximum benefit for the patients.

### 3. Course contents

<table>
<thead>
<tr>
<th>Title</th>
<th>Lectures</th>
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</thead>
<tbody>
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<tr>
<td>2- Stroke</td>
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</tr>
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<td>3- Myopathy</td>
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<td>4- Neuropathy</td>
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<td>5- Ataxia</td>
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</table>

### 4. Teaching and Learning Methods

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

### 5. Student Assessment Methods

#### 5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   - a. Problem solving to assess intellectual skills
   - b. MCQs to assess Intellectual skills.
   - c. Short essay to assess knowledge.
3. Periodic oral and clinical exams include:
   - a. Oral exam to assess knowledge.
   - b. Clinical case discussion to assess practical skills as well as knowledge.
4. Practical notebook to assess practical and general skills
5. Final written exam to assess knowledge and understanding.
6. Final structured oral exam to assess knowledge and understanding.
7. Final clinical exam (OSCE) to assess practical skills.

#### 5-2 Assessment Schedule

- Assessment 1 assignment 1 Week 5
- Assessment 2 Periodic 1 Week 10
- Assessment 3 Periodic 2 Week 15
- Practical notebook Week 20
- Assessment 7 Final Written exam Week 24
- Assessment 8 Final Oral exam Week 24
5-3 Weighting of Assessments

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<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tr>
<td>Final-term Examination</td>
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<tr>
<td>Final Oral Examination</td>
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<tr>
<td>Final Clinical Examination</td>
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</table>

Formative only assessments include: Simple research assignments, Log book, attendance, observation, and periodic oral, written and clinical exams.

6. List of References

6.1- Course Notes
- Notes of the departments and lectures

6.2- Essential Books (Text Books)
- 1. Brain 's Disease of The Nervous System.

6.3- Recommended Books

6.4- Periodicals, Web Sites, … etc
- 1. http://www.google .com

7. Facilities Required for Teaching and Learning

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

Course Coordinator: Dr. Mahmoud Sabry
Supervisor of the Department: Prof. Dr. Ghareeb Fawy

Date: 12/9/2009
Course Specification of Orthopaedic Surgery in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University                         Faculty/ Medicine

1. Program(s) on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Minor
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Orthopaedic Surgery Department.
5. Academic year / Level: 1st part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information
Title: Orthopaedic Surgery

Total hours:

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<th>Lectures</th>
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</thead>
<tbody>
<tr>
<td>48</td>
<td>-</td>
<td>48</td>
<td>96</td>
</tr>
</tbody>
</table>

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

2. Intended Learning Outcomes of Course (ILOs)
   a- Knowledge and Understanding:
      By the end of the course the student should be able to:
      a-1 Understand the abnormal structure, function, growth and development of the musculoskeletal systems of the human body.
      a-2 Have a background of knowledge about the common orthopedic diseases and congenital anomalies of the musculoskeletal system

   b- Intellectual Skills
      By the end of this course, the student should have the ability to:
      b-1 Analyze and evaluate orthopedic data and information and use it in the field of Physical Medicine, Rheumatology and Rehabilitation.
      b-2 Differentiate between true rheumatological complaints and those related to orthopedic diseases
      b-3 Link between knowledge for Professional problems' solving.
      b-4 Assess risk in professional practices in the field of Physical Medicine, Rheumatology and Rehabilitation

   c- Professional and Practical Skills
      By the end of this course the student should be able to:
      c-1 Interpret the results of diagnostic imaging procedures.
      c-2 Apply rehabilitation programs for different orthopedic diseases and disabilities
d- **General and Transferable Skills:**
By the end of this course the student should be able to:
- d-1 Communicate effectively by all types of effective communication.
- d-2 Establish a good patient-physician relationship.
- d-3 Communicate effectively with colleagues from orthopedic surgery specialty to achieve the maximum benefit for the patients

3. **Contents**

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
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<th>Clinical</th>
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<td>Congenital Talipes Equinovarus</td>
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<td>Infectious bone and joint diseases</td>
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<td>Malignant bone and joint diseases</td>
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<td>Traumatic joint and soft tissue disorders</td>
<td>24</td>
<td>12</td>
<td>12</td>
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<td>Fractures and Fracture treatment</td>
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<td>General Complications of fractures</td>
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<td><strong>48</strong></td>
<td><strong>48</strong></td>
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</table>

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

5. **Student Assessment Methods**

5-1 **Methods of student assessment**
   1. Research assignment for the students to empower and assess the general and transferrable skills.
   2. Periodic written exams: include:
      a. Problem solving to assess intellectual skills
      b. MCQs to assess Intellectual skills.
      c. Short essay to assess knowledge.
   3. Periodic oral and clinical exams include:
      a. Oral exam to assess knowledge.
      b. Clinical case discussion to assess practical skills as well as knowledge.
   4. Practical notebook to assess practical and general skills
   5. Final written exam to assess knowledge and understanding.
   6. Final commentary written exam to assess intellectual skills.
   7. Final structured oral exam to assess knowledge and understanding.
   8. Final clinical exam (OSCE) to assess practical skills.

5-2 **Assessment Schedule**

<table>
<thead>
<tr>
<th>Assessment 1 assignment 1</th>
<th>Week 10</th>
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</thead>
<tbody>
<tr>
<td>Assessment 2 Periodic 1</td>
<td>Week 15</td>
</tr>
<tr>
<td>Assessment 3 Periodic 2</td>
<td>Week 20</td>
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Practical notebook  week 20
Assessment 4 Final Written exam  Week 20-24
Assessment 5 Final Oral exam  Week 20-24
Assessment 6 Final Clinical exam  Week 20-24

5-3 Weighting of Assessments

<table>
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<td>Final-written Examination</td>
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<td><strong>Total</strong></td>
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Formative only assessments include: Simple research assignments, attendance, observation, and periodic oral, written and clinical exams.

6. **List of References**
   6.1- Course Notes
      Lecture Notes prepared by the staff members in the Department.
   6.2- Essential Books (Text Books)
      El-Zorqany Textbook of Orthopedic Surgery

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

**Course Coordinator:**    **Head of Department:**

Dr. Mohammed Abd El-Wanees  Prof. Dr. Mohammed Alam Al-Deen

**Date:** 12/9/2009
Course Specification of Applied Physics in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation

2. Major or Minor element of programs: Minor

3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.

4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.

5. Academic year / Level: 1st part.

6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information

Title: Applied Physics

<table>
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</thead>
<tbody>
<tr>
<td>48</td>
<td>48</td>
<td>-</td>
<td>96</td>
</tr>
</tbody>
</table>

B. Professional Information

1. Overall Aims of Course

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

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

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

a-1 Have the basic knowledge about the theories of heating or cooling the body tissues, and the difference between superficial and deep heat.

a-2 Know the nature of Infra-red rays, Ultrasound waves, Short and microwaves and laser beam and their effect on living tissues.

a-3 Understand the therapeutic effects of electricity and the uses of electric current in physiotherapy.

a-4 Enumerate and Define the different physical modalities and their uses and contraindications.

b) Intellectual Skills

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

b-1 Analyze and evaluate data and information in the use of different physical modalities in the field of Physical Medicine and Rehabilitation and titration in accordance.

b-2 Plan to improve performance in the field of Physical Medicine and Rehabilitation

b-3 Identify Rehabilitational Problems and find solutions.

c) Professional and Practical Skills

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

c-1 Perform and evaluate methods and tools existing in the area of Physical Medicine and Rehabilitation
c-2 Use technological methods to serve the professional practice in the field of Physical Medicine, Rheumatology and Rehabilitation.

d) General and Transferable Skills
   d-1 Use information technology to serve the development of professional practice
   d-2 Choose and use the suitable computer program packages
   d-3 Teach others and evaluate their performance.
   d-4 Work as a part of a team and manage a group of people in a work environment.
   d-5 Manage time efficiently.

3. Contents:

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Practical</th>
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<td>Infra-Red</td>
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<td>Therapeutic Ultrasonography</td>
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<td>Ultraviolet rays</td>
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<td>Shortwave and Microwave therapy</td>
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<td>Cryotherapy</td>
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<td>Electric Stimulation of muscles and nerves</td>
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<td>Laser therapy</td>
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<tr>
<td>Total Hours</td>
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<td>48</td>
<td>48</td>
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</table>

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

5. Student Assessment Methods

5-1 Methods of student assessment
   1. Research assignment for the students to empower and assess the general and transferrable skills.
   2. Periodic written exams: include:
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      b. Short essay to assess knowledge.
   3. Periodic oral and clinical exams include:
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   4. Practical notebook to assess practical and general skills
   5. Final written exam to assess knowledge and understanding.
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   8. Final Practical exam (OSPE) to assess practical skills.
5-2 Assessment Schedule

<table>
<thead>
<tr>
<th>Assessment 1 assignment 1</th>
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</thead>
<tbody>
<tr>
<td>Assessment 2 Periodic 1</td>
<td>Week 10</td>
</tr>
<tr>
<td>Assessment 3 Periodic 2</td>
<td>Week 15</td>
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<tr>
<td>Practical notebook</td>
<td>week 20</td>
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<tr>
<td>Assessment 4 Final Written exam</td>
<td>Week 24</td>
</tr>
<tr>
<td>Assessment 5 Final Oral exam</td>
<td>Week 24</td>
</tr>
<tr>
<td>Assessment 6 Final Clinical exam</td>
<td>Week 24</td>
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5-3 Weighting of Assessments

<table>
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<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Final-written Examination</td>
<td>50 %</td>
</tr>
<tr>
<td>Final Oral Examination</td>
<td>20 %</td>
</tr>
<tr>
<td>Final Clinical Examination</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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</table>

Formative only assessments include: Simple research assignments, attendance, observation, and periodic oral, written and clinical exams.

6. **List of References**

6.1- Course Notes:
   - Course notes of the department

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

7. **Facilities Required for Teaching and Learning**

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

2. **TEACHING TOOLS:** including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.

3. **COMPUTER PROGRAMS:** for designing and evaluating MCQs.

**Course Coordinator:** Dr. Esam Mohammed Abu Alfadl  
**Head of Department:** Prof. Dr. Nihal Ahmed Fathi

**Date:** 12/9/2009
**Course Specification of Rheumatology in Master degree in Physical Medicine, Rheumatology & Rehabilitation**

**Sohag University**  
**Faculty/ Medicine**

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2\textsuperscript{nd} part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

**A. Basic Information**

**Title:** Rheumatology

**Total hours:**

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<th>Practical</th>
<th>Clinical</th>
<th>Total hours</th>
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</thead>
<tbody>
<tr>
<td>270</td>
<td>-</td>
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**B. Professional Information**

1. **Overall Aims of Course**
   By the end of this course the students should be able to have the professional knowledge of diagnosis of most rheumatological diseases so as to be able to professionally protect, diagnose and advice the Rheumatology patient correctly.

2. **Intended Learning Outcomes of Course (ILOs)**
   a) **Knowledge and Understanding:**
      By the end of the course the student should be able to:
      a-1 Understand the abnormal structure, function, growth and development of the musculoskeletal and neuromuscular systems of the human body and the aetiopathogenesis of rheumatological diseases.
      a-2 Mention theories, fundamentals and knowledge in the field of Rheumatology specialty.
      a-3 Describe the pathology, clinical symptoms and complications of each rheumatological disease.
      a-4 Understand the sex, age and ethnic differences for different rheumatological diseases
      a-5 Know the differential diagnosis of rheumatological diseases.
      a-6 Mention the various therapeutic methods/alternatives used for rheumatological diseases
      a-7 Follow the scientific developments in the field of Rheumatology.
      a-8 Understand the mutual influence between professional practice and its impacts on the environment.
      a-9 Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Rheumatology.
a-10 Know the principles and fundamentals of quality of professional practice in the field of Rheumatology.

a-11 Have an idea about the basics and ethics of scientific research.

b) Intellectual Skills
By the end of the course the student should have the ability to:

b-1 Analyze and evaluate data and information in the field of Rheumatology and titration in accordance.

b-2 Interpret data acquired through history taking to reach a provisional diagnosis.

b-3 Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.

b-4 Select from different diagnostic alternatives the ones that help reaching a final diagnosis for Rheumatological diseases.

b-5 Link between knowledge for Professional problems' solving.

b-6 Conduct a research study and / or write a scientific study on a research problem.

b-7 Assess risk in professional practices in the field of Rheumatology.

b-8 Plan to improve performance in the field of Rheumatology.

b-9 Identify Rheumatologic Problems and find solutions.

b-10 Analyze researches and issues related to the Rheumatology.

c) Professional and Practical Skills
By the end of the course the student should have the ability to:

c-1 Apply the basic and modern professional, clinical and medical skills in the area of Rheumatology.

c-2 Perform complete history and full physical examination of rheumatic patients.

(c-3) Interpret the results of diagnostic procedures.

c-4 Diagnose rheumatological illnesses.

(c-5) Write a professional treatment prescription.

c-6 Write and evaluate medical reports.

(c-7) Perform and evaluate methods and tools existing in the area of Rheumatology.

(c-8) Deal with the possible complications of the diseases themselves or their treatments.

(c-9) Use technological methods to serve the professional practice in the field of Rheumatology.

d) General and Transferable Skills
By the end of the course the student should be able to:

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

d-2 Establish a good patient-physician relationship.

(d-3) Coordinate with other specialities regarding management of some patients who need this coordination.

d-4 Use information technology to serve the development of professional practice

d-5 Apply self-assessment methods and identify personal learning needs.

(d-6) Use different sources for acquiring information and knowledge.

(d-7) Teach others and evaluate their performance.

(d-8) Develop rules and indicators to assess the performance of others.

(d-9) Work as a part of a team and manage a group of people in a work environment.
d-10 Have the ability for continuous self-learning.

3. Contents

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<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
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<td>Introduction To Joint Anatomy And Joint Physiology</td>
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<td>Public Health And Arthritis. A Growing Problem</td>
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<td>Polyarticular Joint Disease</td>
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<td>Neck and Back Pain</td>
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<td>Regional Rheumatic Pain Syndrome</td>
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<td>Juvenile Idiopathic Arthritis</td>
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<td>Idiopathic Inflammatory Myopathy</td>
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<td>Vasculitides</td>
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<td>Adult Onset Still's Disease</td>
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<td>Complex Regional Pain Syndromes</td>
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<td>Sarcoidosis</td>
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<td>Osteoporosis</td>
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<td>Total Hours</td>
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4. Teaching and Learning Methods

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

5. Student Assessment Methods

5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
a. Problem solving to assess intellectual skills
b. MCQs to assess intellectual skills.
c. Short essay to assess knowledge.

3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
   b. Clinical case discussion to assess practical skills as well as knowledge.

4. Practical notebook to assess practical and general skills

5. Log book to assess practical, general and transferrable skills.

6. Criticism of 10 rheumatological papers to assess intellectual skills.

7. Final written exam to assess knowledge and understanding.

8. Final commentary written exam to assess intellectual skills.

9. Final structured oral exam to assess knowledge and understanding.

10. Final clinical exam (OSCE) to assess practical skills.

5-2 Assessment Schedule

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Date</th>
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<td>Assessment 1</td>
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<td>Assessment 3</td>
<td>Week 30</td>
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<td>Assessment 4</td>
<td>Week 40</td>
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<td>Assessment 5</td>
<td>Week 45</td>
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<td>Assessment 6</td>
<td>Week 60</td>
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<tr>
<td>Log book</td>
<td>week 80</td>
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<tr>
<td>Practical notebook</td>
<td>week 80</td>
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<tr>
<td>Assessment 7</td>
<td>Week 96-100</td>
</tr>
<tr>
<td>Assessment 8</td>
<td>Week 96-100</td>
</tr>
<tr>
<td>Assessment 9</td>
<td>Week 96-100</td>
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</tbody>
</table>

5-3 Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Final-term Examination</td>
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<tr>
<td>Final Oral Examination</td>
<td>20 %</td>
</tr>
<tr>
<td>Final Clinical Examination</td>
<td>30 %</td>
</tr>
</tbody>
</table>

Total 100%

Formative only assessments include: Simple research assignments, Log book, attendance, observation, and periodic oral, written and clinical exams.

6. List of References

6.1- Course Notes
   Notes of the departments and lectures

6.2- Essential Books (Text Books)

6.3- Recommended Books

6.4- Periodicals, Web Sites, … etc
   1. ACR journal of rheumatology.
   2. Arthritis Journal
   3. EULAR journal
   4. ILAR journal.
7. Facilities Required for Teaching and Learning
   1. ADEQUATE INFRASTRUCTURE: including teaching places (teaching classes, teaching halls), comfortable disks, good source of aeration, bathrooms, good illumination and safety, & security tools.
   2. TEACHING TOOLS: including screens, computers including CDs (RW) and USB ports, data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, color and laser printer.
   3. COMPUTER PROGRAMS: for designing and evaluating MCQs.

Course Coordinator: Dr. Mohamed Ali Esmail

Supervisor of the Department: Prof. Dr. Nihal Ahmed Fathi

Date: 12/9/2009
Course Specification of Immunology in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information

Title: Immunology

Total hours:

<table>
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<tr>
<th>Lectures</th>
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<th>Clinical</th>
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<tbody>
<tr>
<td>90</td>
<td>-</td>
<td>90</td>
<td>180</td>
</tr>
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</table>

B. Professional Information

1. Overall Aims of Course
By the end of this course the students should be able to have the professional knowledge of diagnosis of immunologically-determined rheumatological diseases so as to be able to professionally protect, diagnose and advice the Rheumatology patient correctly.

2. Intended Learning Outcomes of Course (ILOs)
   a) Knowledge and Understanding:
      By the end of the course the student should be able to:
      a-1 Have sound knowledge on the basics of the immune system.
      a-2 Mention theories, fundamentals and knowledge in the field of immunologically determined rheumatological diseases.
      a-3 Know the differential diagnosis of immunological and auto-immune diseases.
   b) Intellectual Skills
      By the end of the course the student should have the ability to:
      b-1 Analyze and evaluate data and information in the field of Immunology and titration in accordance.
      b-2 Select from different diagnostic immunological alternatives the ones that help reaching a final diagnosis for Rheumatological diseases.
      b-3 Link between knowledge for Professional problems' solving.
      b-4 Plan to improve performance in the field of Rheumatology.
      b-5 Identify Rheumatologic Problems and find solutions.
   c) Professional and Practical Skills
      By the end of the course the student should have the ability to:
      c-1 Interpret the results of diagnostic immunological procedures.
      c-2 Diagnose rheumatological illnesses.
c-3 Understand and criticize medical reports containing immunological data

d) General and Transferable Skills
By the end of the course the student should be able to:

d-1 Use information technology to serve the development of professional practice

d-2 Choose and use the suitable computer program packages

d-3 Apply self-assessment methods and identify personal learning needs.

d-4 Use different sources for acquiring information and knowledge.

d-5 Work as a part of a team and manage a group of people in a work environment.

d-6 Have the ability for continuous self-learning.

3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
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<th>Clinical</th>
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</thead>
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<tr>
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<td>Innate and Acquired Immune Response</td>
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<td>Cells involved in Autoimmune Disease and Arthritis</td>
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<td>Immunological basis of Rheumatic Diseases</td>
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4. Teaching and Learning Methods

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

5. Student Assessment Methods

5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   a. Problem solving to assess intellectual skills
   b. MCQs to assess Intellectual skills.
   c. Short essay to assess knowledge.
3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
   b. Clinical case discussion to assess practical skills as well as knowledge.
4. Practical notebook to assess practical and general skills
5. Log book to assess practical, general and transferrable skills.
6. Criticism of 5 Immunological papers to assess intellectual skills.
7. Final written exam to assess knowledge and understanding.
8. Final commentary written exam to assess intellectual skills.
9. Final structured oral exam to assess knowledge and understanding.
10. Final clinical exam (OSCE) to assess practical skills.

**5-2 Assessment Schedule**

| Assessment 1 | Assignment 1 | Week 15 |
| Assessment 2 | Periodic 1   | Week 25 |
| Assessment 3 | Periodic 2   | Week 30 |
| Assessment 4 | Assignment 2 | Week 40 |
| Assessment 5 | Periodic 3   | Week 45 |
| Assessment 6 | Periodic 4   | Week 60 |
| Log book    |              | Week 80 |
| Practical notebook |      | Week 80 |
| Assessment 7 | Final Written exam | Week 96-100 |
| Assessment 8 | Final Oral exam | Week 96-100 |
| Assessment 9 | Final Clinical exam | Week 96-100 |

**5-3 Weighting of Assessments**

<table>
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<tr>
<th>Assessment Type</th>
<th>Weighting</th>
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<tr>
<td>Final-term Examination</td>
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<tr>
<td>Final Oral Examination</td>
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<tr>
<td>Final Clinical Examination</td>
<td>30%</td>
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<tr>
<td><strong>Total</strong></td>
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Formative only assessments include: Simple research assignments, Log book, attendance, observation, and periodic oral, written and clinical exams.

**6. List of References**

6.1- Course Notes
- Lecture Notes prepared by the staff members in the Department.

6.2- Essential Books (Text Books)
- 1. Roitt Essential Immunology.

6.3- Recommended Books
- A coloured Atlas of Microbiology.

6.4- Periodicals, Web Sites, … etc
- http://mic.sgmjournals.org/

**7. Facilities Required for Teaching and Learning**

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

Course Coordinator: Dr. Mohamed Ali Esmail

Supervisor of the Department: Prof. Dr. Nihal Ahmed Fathi

Date: 12/9/2009
Course Specification of Physical Medicine in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University               Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A. Basic Information
Title: Physical Medicine

Total hours:

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<th>Total hours</th>
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<tbody>
<tr>
<td>90</td>
<td>90</td>
<td>90</td>
<td>270</td>
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</table>

B. Professional Information
1. Overall Aims of Course
By the end of this course the students should be able to have the professional knowledge of different physical modalities available for treating and palliating physically handicapped patients and to have the skills of dealing with these conditions so as to minimize the handicap and pain and maximize function of the affected organs and systems.

2. Intended Learning Outcomes of Course (ILOs)
a) Knowledge and Understanding:
By the end of the course the student should be able to:
a-1 Understand the physiology of muscle and nerve and the physiology of central nervous system
a-2 Mention theories, modalities and recent knowledge in the field of Physical Medicine.
a-3 Mention the various physical therapeutic methods/alternatives used for rheumatological diseases
a-4 Enumerate and Define the different physical modalities and their uses and contraindications.
a-5 Follow the scientific developments in the field of Physical Medicine.
a-6 Understand the mutual influence between professional practice and its impacts on the environment.
a-7 Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Physical Medicine.
a-8 Know the principles and fundamentals of quality of professional practice in the field of Physical Medicine.

b) Intellectual Skills
By the end of the course the student should have the ability to:
b-1 Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
b-2 Assess the function of the motor system
b-3 Select from different diagnostic alternatives the ones that help reaching a final decision for Physical Medicine purposes.
b-4 Link between knowledge for Professional problems' solving.
b-5 Assess risk in professional practices in the field of Rheumatology.
b-6 Plan to improve performance in the field of Physical Medicine., Rheumatology and Rehabilitation
b-7 Analyze researches and issues related to the Physical Medicine.

c) Professional and Practical Skills
By the end of the course the student should have the ability to:
c-1 Apply the basic and modern professional, clinical and medical skills in the area of Physical Medicine.
c-2 Write and evaluate medical reports.
c-3 Perform and evaluate methods and tools existing in the area of Physical Medicine.
c-4 Use technological methods to serve the professional practice in the field of Physical Medicine.

d) General and Transferable Skills
By the end of the course the student should be able to:
d-1 Establish a good patient-physician relationship.
d-2 Use information technology to serve the development of professional practice
d-3 Apply self-assessment methods and identify personal learning needs.
d-4 Use different sources for acquiring information and knowledge.
d-5 Work as a part of a team and manage a group of people in a work environment.
d-6 Manage time efficiently.

3. Contents

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<th>Clinical</th>
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<td>Wheelchairs and assistive devices</td>
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<td>Upper and lower limb prosthesis</td>
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<td>Spinal Orthosis</td>
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<td>Upper and lower limb orthosis</td>
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<tr>
<td>Total hours</td>
<td>270</td>
<td>90</td>
<td>90</td>
<td>90</td>
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</table>

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

5. **Student Assessment Methods**

5-1 **Methods of student assessment**

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   a. Problem solving to assess intellectual skills
   b. MCQs to assess Intellectual skills.
   c. Short essay to assess knowledge.
3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
   b. Clinical case discussion to assess practical skills as well as knowledge.
4. Practical notebook to assess practical and general skills
5. Log book to assess practical, general and transferrable skills.
6. Criticism of 5 Physical Medicine papers to assess intellectual skills.
7. Final written exam to assess knowledge and understanding.
8. Final commentary written exam to assess intellectual skills.
9. Final structured oral exam to assess knowledge and understanding.
10. Final clinical exam (OSCE) to assess practical skills.

5-2 **Assessment Schedule**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Week</th>
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<tbody>
<tr>
<td>Assessment 1 assignment 1</td>
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<tr>
<td>Assessment 2 Periodic 1</td>
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<td>Assessment 3 Periodic 2</td>
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<td>Assessment 5 Periodic 3</td>
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<td>Assessment 6 Periodic 4</td>
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<td>Log book</td>
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<td>Practical notebook</td>
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<td>Assessment 7 Final Written exam</td>
<td>96-100</td>
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<tr>
<td>Assessment 8 Final Oral exam</td>
<td>96-100</td>
</tr>
<tr>
<td>Assessment 9 Final Clinical exam</td>
<td>96-100</td>
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</table>

5-3 **Weighting of Assessments**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Final-term Examination</td>
<td>50 %</td>
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<tr>
<td>Final Oral Examination.</td>
<td>20 %</td>
</tr>
<tr>
<td>Final Clinical Examination</td>
<td>30 %</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Formative only assessments include: Simple research assignments, Log book, attendance, observation, and periodic oral, written and clinical exams.

6. **List of References**

6.1- **Course Notes**

   Lecture Notes prepared by the staff members in the Department.

6.2- **Essential Books (Text Books)**

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

Course Coordinator: Dr. Zahraa Ibrahim Abo Al-Oyoon
Supervisor of the Department: Prof. Dr. Nihal Ahmed Fathi
Date: 12/9/2009
Course Specification of Rehabilitation in Master degree in Physical Medicine, Rheumatology & Rehabilitation

Sohag University                         Faculty/ Medicine

1. Program on which the course is given: Master Degree in Physical Medicine, Rheumatology and Rehabilitation
2. Major or Minor element of programs: Major
3. Department offering the program: Physical Medicine, Rheumatology and Rehabilitation Department.
4. Department offering the course: Physical Medicine, Rheumatology and Rehabilitation Department.
5. Academic year / Level: 2nd part.
6. Date of specification approval: Faculty Council No.182, decree No. 7163, Dated 14/9/2009.

A- Basic Information

Title: Rehabilitation

<table>
<thead>
<tr>
<th>Lectures</th>
<th>Practical</th>
<th>Clinical</th>
<th>Total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>180</td>
<td>90</td>
<td>90</td>
<td>360</td>
</tr>
</tbody>
</table>

B- Professional Information

1. Overall Aims of Course
   By the end of this course the students should be able to have the professional knowledge of diagnosis of most handicapping problems and infirmities, and to have the skills of dealing with these conditions so as to minimize the handicap and pain and maximize function of the affected organs and systems.

2. Intended Learning Outcomes of Course (ILOs)
   a) Knowledge and Understanding:
      By the end of the course the student should be able to:
      a-1 Mention the nature of pain and pain control systems
      a-2 Mention theories, modalities and recent knowledge in the field of Rehabilitation specialty.
      a-3 Know the definition and types of handicap.
      a-4 Follow the scientific developments in the field of Rehabilitation.
      a-5 Understand the mutual influence between professional practice and its impacts on the environment.
      a-6 Define the principles and fundamentals of ethics and legal aspects of professional practice in the field of Rehabilitation.
      a-7 Know the principles and fundamentals of quality of professional practice in the field of Rehabilitation.
      a-8 Have an idea about the basics and ethics of scientific research.
      a-9 Understand the sex, age, ecological, functional and ethnic differences for different rehabilitation purposes.
   b) Intellectual Skills
      By the end of the course the student should have the ability to:
      b-1 Analyze and evaluate data and information in the field of Physical Medicine, Rheumatology and Rehabilitation and titration in accordance.
      b-2 Observe symptoms and signs of handicap.
      b-3 Assess the function of the motor system
b-4 Differentiate between the multiple complaints of the patient, ranging them from the most important to the less ones.
b-5 Differentiate between the types and nature of pain perceived by the patient and the best way to eliminate or decrease its perception.
b-6 Select from different diagnostic alternatives the ones that help reaching a final decision for Rehabilitation program.
b-7 Link between knowledge for Professional problems' solving.
b-8 Conduct a research study and/or write a scientific study on a research problem.
b-9 Assess risk in professional practices in the field of Rehabilitation Medicine.
b-10 Plan to improve performance in the field of Rehabilitation Medicine.
b-11 Identify Rehabilitational Problems and find solutions.
b-12 Analyze researches and issues related to the Rehabilitation Medicine.

c) Professional and Practical Skills
By the end of the course the student should have the ability to:
c-1 Apply the basic and modern professional, clinical and medical skills in the area of Rehabilitation.
c-2 Perform complete history and full physical examination of rheumatic patients.
c-3 Interpret the results of diagnostic procedures.
c-4 Write and evaluate medical reports.
c-5 Perform and evaluate methods and tools existing in the area of Rehabilitation Medicine.
c-6 Deal with the possible complications of the diseases themselves or their treatments.
c-7 Apply rehabilitation program for the different varieties of disabilities.
c-8 Inject joints and soft tissues.
c-9 Use technological methods to serve the professional practice in the field of Rehabilitation.

d) General and Transferable Skills
By the end of the course the student should be able to:
d-1 Communicate effectively by all types of effective communication.
d-2 Establish a good patient-physician relationship.
d-3 Coordinate with other specialties regarding management of some patients who need this coordination.
d-4 Use information technology to serve the development of professional practice.
d-5 Apply self-assessment methods and identify personal learning needs.
d-6 Use different sources for acquiring information and knowledge.
d-7 Teach others and evaluate their performance.
d-8 Develop rules and indicators to assess the performance of others.
d-9 Work as a part of a team and manage a group of people in a work environment.
d-10 Manage time efficiently.
d-11 Have the ability for continuous self-learning.
3. Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>No. of hours</th>
<th>Lecture</th>
<th>Practical</th>
<th>Clinical</th>
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<td>Pain and its nature and pathways</td>
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<td>8</td>
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<td>Human Walking</td>
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<td>Disability Determination</td>
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<td>14</td>
<td>10</td>
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<tr>
<td>Imaging Techniques Relative to Rehabilitation</td>
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<tr>
<td>Manipulation, Massage and Traction</td>
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<td>Injection Procedures</td>
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<td>Aquatic Rehabilitation</td>
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<td>Ethical issues in Rehabilitation</td>
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<td>Measuring Quality of Life in Rehabilitation Medicine</td>
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<td>16</td>
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<td>Gait restoration and walking Rehabilitation</td>
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<td>Spasticity and movement Disorders</td>
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<td>Neurogenic bladder and bowel rehabilitation</td>
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<td>Stroke rehabilitation and Rehabilitation of traumatic brain injury</td>
<td>18</td>
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<td>Cardiac Rehabilitation</td>
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<tr>
<td>Respiratory Rehabilitation</td>
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<td>Burn Rehabilitation</td>
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<td>360</td>
<td>180</td>
<td>90</td>
<td>90</td>
</tr>
</tbody>
</table>

4. Teaching and Learning Methods

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

5. Student Assessment Methods

5-1 Methods of student assessment

1. Research assignment for the students to empower and assess the general and transferrable skills.
2. Periodic written exams: include:
   a. Problem solving to assess intellectual skills
   b. MCQs to assess Intellectual skills.
3. Periodic oral and clinical exams include:
   a. Oral exam to assess knowledge.
   b. Clinical case discussion to assess practical skills as well as knowledge.
4. Practical notebook to assess practical and general skills
5. Log book to assess practical, general and transferrable skills.
6. Criticism of 5 Rehabilitational papers to assess intellectual skills.
7. Final written exam to assess knowledge and understanding.
8. Final commentary written exam to assess intellectual skills.
9. Final structured oral exam to assess knowledge and understanding.
10. Final clinical exam (OSCE) to assess practical skills.

5-2 Assessment Schedule

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Type</th>
<th>Week</th>
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</thead>
<tbody>
<tr>
<td>Assessment 1</td>
<td>assignment 1</td>
<td>Week 15</td>
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<td>Assessment 2</td>
<td>Periodic 1</td>
<td>Week 25</td>
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<td>Assessment 3</td>
<td>Periodic 2</td>
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<td>Periodic 3</td>
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<td>Assessment 6</td>
<td>Periodic 4</td>
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<tr>
<td>Log book</td>
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<td>week 80</td>
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<td>Practical notebook</td>
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<tr>
<td>Assessment 7</td>
<td>Final Written exam</td>
<td>Week 96-100</td>
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<tr>
<td>Assessment 8</td>
<td>Final Oral exam</td>
<td>Week 96-100</td>
</tr>
<tr>
<td>Assessment 9</td>
<td>Final Clinical exam</td>
<td>Week 96-100</td>
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5-3 Weighting of Assessments

<table>
<thead>
<tr>
<th>Assessment Type</th>
<th>Weight</th>
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<tbody>
<tr>
<td>Final-term Examination</td>
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