جامعة بنها
كلية الطب البشرى
قسم الروماتيزم والتأهيل والطب الطبيعى

توصيف برنامج ماجستير الروماتيزم والتأهيل والطب الطبيعى
(عام ٢٠١٣ -٢٠١٤)

A- Basic Information: * معلومات أساسية :

١ - اسم البرنامج :

Master degree (MSc) Rheumatology, Rehabilitation & Physical Medicine

٢ - طبيعة البرنامج : Multiple (متعدد)

٣- الأقسام المسئولة عن البرنامج:

- القسم المانح للدرجه:

- Rheumatology, Rehabilitation & Physical Medicine Department

- الاقسام المشتركه:

- Internal Medicine Department,
- Anatomy and Embryology Department,
- Physiology Department.

٤- تاريخ إقرار البرنامج فى مجلس القسم : ٣-٩-٢٠١٣ (٢٠١)

٥- تاريخ إقرار البرنامج فى مجلس الكلية: ١٥-٩-٢٠١٣ (٣٥٦)

٦- منسق البرنامج **Dr. Nashwa I. Hashaad**

Dr. Rasha M. Fawzy

Prof. Dr. Samia M. Abdelmonem

٧- المراجعة الداخلية للبرنامج :

8- المراجع الخارجى: **Prof. Dr. Nahla M. Gaballah,** Professor of Rheumatology,Rehabilitation & Physical Medicine, Zagazig University.

*** معلومات متخصصة:**

B- Professional information

١ ـ الأهداف العامة للبرنامج :

1- Overall Aims of the Program:

The overall aims of the program are to:

1-1. ***Provide*** students with the basic knowledge of normal and abnormal biomechanics of the musculoskeletal system,

1-2. ***Give*** students a background covering the common and important musculoskeletal disorders as regard causes, clinical presentation, diagnosis and management,

1-3. ***Allow*** students to analyze professional problems in the field of Rheumatology, Rehabilitation and Physical Medicine and plan for their evaluation and management,

1-4. ***Use*** of modern resources for establishment of specialized professional skills in problem solving and decision-making,

1-5. ***Have*** life-long learning competencies necessary for continuous professional development,

1-6. ***Realize*** researches related to Rheumatology, Rehabilitation and Physical Medicine and their community expansion,

1-7. ***Build-up*** their basic administrative skills necessary for delivery of appropriate health service.

٢ ـ المخرجات التعليمية المستهدفة من البرنامج :

2-Intended Learning Outcomes (ILOS):

٢.أ ـ المعرفة والفهم :

2.a. Knowledge and Understanding

On successful completion of the program, the graduate will be able to:

2.a.1. Explain the normal structure and biomechanics of body joints as related to their function and gait pattern,

2.a.2. Explain the common causes of arthritis and musculoskeletal disorders (acute and chronic) as well as the pathogenesis and management of rheumatic diseases,

2.a.3. Describe the physical morbidity of musculoskeletal diseases and discuss functional plans for management,

2.a.4. Recognize the basic principles of specific investigational plans within the community for the diagnosis of prevalent rheumatic and musculoskeletal diseases,

2.a.5. Illustrate the basic issues of patients' health and safety within legal and ethical principals while providing physical therapy, rehabilitation approaches or management of rheumatic diseases,

2.a.6. Identify rising issues in the field Rheumatology, and Rehabilitation and Physical medicine through clinical trials and scientific researches,

2.a.7. Discuss developments of health care services for the diagnosis and management of musculoskeletal diseases to improve medical practice,

2.a.8. Recognize different types of neuroreceptors,

2.a.9. Identify most recent modalities used in pain control,

2.a10. ***Explain*** the mechanisms of action of the immune system (innate and specific),

2.a.11.Understand the physiological and immunological basis for the inflammatory reactions.

٢. ب ـ القدرات الذهنية :

2.b. Intellectual Skills:-

On successful completion of the program, the graduate will be able to:

2.b.1. Plan questioning, clinical and investigational database to clinical problem solving,

2.b.2. Formulate a list of initial differential diagnosis for each problem affecting musculoskeletal system and rheumatic diseases,

2.b.3. Analyze posture of your case and detect mal-alignment,

2.b.4. Design plans interrelated with recent scientific statements in the field of Rheumatology, Rehabilitation and Physical Medicine,

2.b.5. Design rehabilitation programs for patients with chronic medical or musculoskeletal illnesses,

2.b.6. Interpret risk factors of disease or injury, to determine strategies for appropriate prophylaxis,

2.b.7. Interpret situations through proper analysis, consultation and referral,

2.b.8. Choose most effective physical modality and evaluate response,

2.b.9. Interpret results of electromyography to diagnose musculoskeletal diseases,

2.b.10. Evaluate the abnormality in the immunological profile.

٢.ج . مهارات مهنية وعملية :

2.c. Practical and professional *Skills:-*

On successful completion of the program, the graduate will be able to :

2.c.1. Take a complete and focused medical history and formulates specific clinical sheets suitable to record common medical problems in the field of Rheumatology, Rehabilitation and Physical Medicine,

2.c.2. Write tests showing disorders affecting the musculoskeletal system of different age groups,

2.c.3. Perform technical procedures; diagnostic and therapeutic in the field of Rheumatology, Rehabilitation and Physical Medicine,

2.c.4. Select evaluation methods for patients with different disabilities,

2.c.5. Perform intra-articular and soft tissue injections,

2.c.6. Perform electromyography and nerve conduction studies,

2.c.7. Write safe prescriptions of different types of drugs including non-biological and biological agents,

2.c.8. Select different types of orthoses and prostheses suitable for different age and sex group,

2.c.9. Develop factors influencing the inflammatory and immunological reactions,

2.c.10. Manage chronic injuries and trauma with appropriate technical procedures.

٢.د . مهارات عامة :

2.d. General and transferable skills:-

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

2.d.1. Establish life-long self-learning required for continuous professional development in the field of Rheumatology, Rehabilitation and Physical Medicine,

2.d.2. Use sources of medical information and communication technology to remain up- to-date with advances in knowledge and practice,

2.d.3. Retrieve scientific information clearly in written, electronic and oral forms,

2.d.4. Establish effective interpersonal relationship to communicate ideas and arguments,

2.d.5. Work in interdisciplinary team according to rules and principles for assessment and within time-planned programs,

2.d.6. Determine personal learning needs.

٣- المعايير الأكاديمية للبرنامج: 3- Academic Standards of

Master degree (MSc) Rheumatology, Rehabilitation & Physical Medicine, approved in department council September 2013 and in faculty council September 2013,

(ملحق1)

a) المعايير القياسية لبرامج الدراسات العليا (درجة الماجستير)الصادرة عن الهيئة القومية لجودة التعليم والإعتماد (مارس ٢٠٠٩)

- **Academic Reference Standards (ARS) of Master Program,** which were issued by the National Authority for Quality Assurance & Accreditation NAQAAE (2009), approved in **Rheumatology, Rehabilitation and Physical Medicine** department council no. **(200)**; date 8/7 /2013, and in faculty council no. **(355)**; date 20 /7/ 2013. **(ملحق ٢)**

5 - هيكل ومكونات البرنامج 5) Program structure and contents

أ - مدة البرنامج : سنتين

Two years to pass the Master degree:

- **1st part:** One Semester.
- **2nd part:** Two Semesters.
- **Thesis**: One Semester.

- ب - هيكل البرنامج :

- **Total hours of program: 40 credit hours**
- **Theoretical : 22 hours**
- **Practical: 7 hours**
- **Logbook:5 hours**

- **University and faculty requirement:6 hours**

- **ج- مستويات ومقررات البرنامج:**

Compulsory

البند	المقررات	الكود	الساعات المعتمدة
متطلبات	**الجامعة والكلية**	**UNIV 601**	**٦ ساعات**
الجزء الأول	يشمل الآتي:		**٧ ساعات**
	مقرر علمي في التشريح التطبيقي فيما يختص بالجهاز الحركي والعصبي والنفسي	**RHUM 601**	**١.٥ ساعة**
	مقرر علمي وعملي في الفسيولوجيا التطبيقية فيما يختص بالجهاز الحركي والعصبي والدورة الدموية والتنفس والغدد الصماء	**RHUM 602**	**١.٥ ساعة**
	مقرر طبي وإكلينيكي في الأمراض الباطنة العامة وتخصصاتها	**RHUM 603**	**١.٥ ساعة**
	مقرر نظرى وشفهى فى الطبيعة التطبيقية	**RHUM 604**	**١.٥ ساعة**
	مشاهدات تطبيقية بقسم الروماتزم والتأهيل لما درس بالمواد السابقة	**RHUM 605**	**١ ساعة**
كراسة الأنشطة	تسجل بها الأنشطة المختلفة مثل حضور الندوات العلمية والمؤتمرات والدورات التدريبية وإجراء أبحاث إضافية		**٥ ساعات**
الجزء الثانى	يشمل الآتي:		**١٦ ساعة**

	مقرر علمي في الأمراض الروماتيزمية والعلاج الدوائي والجراحي	RHUM 606	٣ ساعة
	مقرر علمي وعملي في أمراض الجهاز الحركي الأخري	RHUM 607	٣ ساعة
	مقرر علمي وعملي في أمراض المناعة	RHUM 608	٣ ساعة
	مقرر علمي وعملي في الإستعمالات الإكلينيكية للوسائل الطبيعية في التشخيص والعلاج	RHUM 609	٣ ساعة
	مقرر علمي وعملي في التأهيل والأطراف الصناعية والأجهزة التعويضية	RHUM 610	٢ ساعة
	تدريب عملي وإكلينيكي لما جاء بالبنود السابقة	RHUM 611	٢ ساعة
رسالة ماجستير			٦ ساعة
الاجمالى			٤٠ ساعة

First part (one semester)

a- Compulsory courses:

Course Title	Course Code	No. of hours/week			Total teaching hours
		Lectures/seminars	Practical	Total	
Applied Anatomy	RHUM 601	1	½	1½	22½
Applied	RHUM	1	½	1½	22½

Physiology	**602**				
Internal Medicine	**RHUM 603**	**1**	**½**	**1½**	**22½**
Applied Physics	**RHUM 604**	**1**	**½**	**1½**	**22½**
Total		**4**	**2**	**6**	**90**

b- Elective courses: none

Second part (two semesters)

a- Compulsory courses:

Course Title	Code	No. of hours/week			Total teaching hours
		Theoretical	Clinical	Total	
Rheumatology (Rheumatic Diseases /Immunology)	**RHUM 606/608**	**4**	**2**	**6**	**180**
Rehabilitation Medicine (Musculoskeletal Disorders/ Physical Medicine/ Rehabilitation Medicine)	**RHUM 607/609/610**	**5**	**3**	**8**	**240**
Practical	**RHUM 611**	**2**			**60**

Log Book Activities		**5**
Total		**485**

b- Elective courses: none.

٦ـ محتويات المقرات (راجع توصيف المقررات)

٧ ـ متطلبات الإلتحاق بالبرنامج :

(5): Program admission requirements:

مادة (٤) : ** يشترط فى قيد الطالب لدرجة الماجستير

١- (أ) أن يكون حاصلا على درجة البكالوريوس فى الطب والجراحة من إحدى جامعات ج٠م٠ع أو على درجة معادلة لها من معهد علمى معترف به من الجامعة بتقدير جيد على الأقل ٠

(ب) يسمح للحاصل على الدبلوم وفقا لنظام هذه اللائحة وبتقدير جيد على الأقل بتسجيل رسالة لاستكمال درجة الماجستير بشرط ألا يكون قد مر أكثر من ثلاث سنوات على تاريخ حصوله على درجة الدبلوم وبغض النظر على تقديره فى درجة البكالوريوس ٠

(ج) يسمح للحاصل على الدبلوم وعلى خلاف لنظام هذه اللائحة أن يسجل لدرجة الماجستير بشرط أن يكون تقديره فى الدبلوم لا يقل عن جيد وبغض النظر عن تقديره فى البكالوريوس ٠

٢- أن يكون قد أمضى السنة التدريبية أو ما يعادلها (سنة الامتياز)

٣- أن يتفرغ للدراسة لمدة سنة على الأقل فى الجزء الثانى (فصلين دراسيين)

مادة (٥) : يكون التقدم للقيد لدرجة الماجستير مرة واحدة فى السنة خلال شهرى يوليو وأغسطس من كل عام ٠

- تبدأ الدراسة لدرجة الماجستير فى شهر أكتوبر من كل عام ٠

8 ـ القواعد المنظمة لإستكمال البرنامج : (طبقاً لما هو مذكور فى اللائحة):

مادة (٦) : تتولى لجنة الدراسات العليا بالكلية عن طريق لجنة تشكل لكل تخصص من أعضاء مجلس القسم التابع له المادة والقسم المانح للدرجة وضع البرنامج التفصيلى للمقررات فى حدود الساعات المعتمدة الواردة باللائحة وعند الاختلاف يتم الاسترشاد بمقررات جامعة القاهرة ومقررات الشهادات العالمية الأوربية والأمريكية يعتمدها مجالس الأقسام ثم يقرها مجلس الكلية وتشمل هذه الساعات محاضرات نظرية ودروس عملية وتدريبى إكلينيكى ومحاضرات وندوات مشتركة ٠

مادة (٧): يشترط فى الطالب لنيل درجة ماجستير التخصص فى أحد الفروع الاكلينيكية والعلوم الطبية الأساسية:

أ- حضور المقررات الدراسية والتدريبات الاكلينيكية والعملية والمعملية بصفة مرضية طبقا للساعات المعتمدة.

ب- أن يقوم بالعمل كطبيب مقيم أصلى أو زائر لمدة سنة على الأقل فى قسم التخصص بالنسبة للعلوم الاكلينيكية.

ت- أن ينجح فى امتحان القسمين الأول والثانى.

ث- اجتياز الطالب لثلاث دورات فى الحاسب الآلى (دورة فى مقدمة الحاسب – دورة تدريبية متوسطة – دورة فى تطبيقات الحاسب الآلى) وذلك قبل مناقشة الرسالة.

ج- اجتياز اختبار التويفل بمستوى لايقل عن ٤٠٠ وحدة وذلك قبل مناقشة الرسالة.

ح- أن يقوم باعداد بحث فى موضوع تقره الجامعة بعد موافقة مجلس القسم ومجلس الكلية ينتهى باعداد رسالة تقبلها لجنة التحكيم.

٩-طرق وقواعد تقييم الملتحقين بالبرنامج

9- Student Assessment Method

م	الطريقة	ما تقيسة من مخرجات التعلم المستهدفة
١	**Written examination**	To assess knowledge &understanding and

intellectual skills. **2.a.1.→ 2.a.11, 2.b.1. → 2.b.10.**		
To assess knowledge & understanding , intellectual skills and general & transferable skills. **2.a.1.→ 2.a.11, 2.b.1. → 2.b.10,** **2.d.1. → 2.d.6.**	**Oral examination**	٢
To assess knowledge & understanding, intellectual skills, practical &clinical skills and general & transferable skills. **2.a.1.→ 2.a.11, 2.b.1. → 2.b.10, 2.c.1. → 2.c.10, 2.d.1. → 2.d.6.**	**Practical examination**	٣

First part

المقرر	الاختبار	الـــدرجة				إجمالي
		تحريري	شفهي	عملي	إكلينيكي	
مقـــرر التشـــريح التطبيقي	إختبار تحريري مدته ٣ ساعات +مع إختبار شفوي.	٢٥	٥٠		---	٧٥
مقـــــــــــرر الفســـــــيولوجيا التطبيقية	إختبار تحريري مدته ٣ ساعات + إختبار شفهي.	٢٥	٥٠		----	٧٥
مقررالأمـــــراض الباطنة العامة	إختبار تحريري مدته ثلاث ساعات + إختبـــار إكلينيكـــى + إختبـــار شفهي.	٢٥	٢٥		٢٥	٧٥
مقـــرر الطبيعـــة	إختبار تحريري مدته ثلاث	٢٥	٢٥	٢٥		٧٥

التطبيقية	ساعات + إختبار عملى + اختبار شفهي					
إجمالى الدرجات						٣٠٠

Second part

المقرر	الاختبار	الدرجة				إجمالي
		تحريري	شفهي	إكلينيكي	عملي	
مقررالأمـــراض الروماتيزميـــة وأمـــــراض المناعة	اختبار تحريري مدته٣ ساعات + إختبار إكلينيكي+ إختبار عملى+ إختبار شفهي	١٥٠	٢٠	١٢٥		٣٠٠
أمراض الجهاز الحركي الأخري والطب الطبيعي والتأهيل والأطراف الصناعية والأجهزة التعويضية والإستعمالات الإكلينيكية للوسائل الطبيعية في التشخيص والعلاج	إختبار تحريري مدته ٣ ساعات في أمراض الجهاز الحركي الأخري والطب الطبيعي والتأهيل والأطراف الصناعية والأجهزة التعويضية + إختيار عملي + شفوي + إكلينيكى	٢٠٠	٥٠	١٥٠		٤٠٠
إجمالي الدرجة						٧٠٠

10- Evaluation of Program: ١٠ ـ طرق تقويم البرنامج:

Evaluator	Tools	Sample
Internal evaluator **(s)** **Prof. Dr. Sahar Saad Ganeb**	**Focus group discussion Meetings**	**٢-١ report**

External Evaluator **(s)** **Prof. Dr. Abdel Samad I. El-Hawala**	**Reviewing according to external evaluator checklist report of NAQAAE**	**٢-١ report**
Senior student **(s)** **طلاب السنة النهائية**	**مقابلات , استبيان**	**All**
Alumni **الخريجون**	**مقابلات ،استبيان**	**Not less than 50%** **From the last 3 ye**
Stakeholder **(s)** **أصحاب العمل**	**مقابلات ،استبيان**	**Samples represent** **From all sectors**

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١١- استراتيجيات التعليم و التعلم:

١-استراتيجة التعلم النشط
٢- استراتيجة التعليم المبني على المخرجات
٣- استراتيجة التعليم المبني على حل المشاكل

المسئول عن البرنامج : التوقيع التاريخ : / /

Program Coordinator:

Name Dr ……..... Signature……..Date ……

الملحقات

ملحق ١: Academic standards of the program (الوثيقة)

ملحق ٢:المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة.

ملحق 3: مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة.

ملحق ٤: مصفوفة المضاهاه بين المعايير المتبناه لبرنامج ماجستير الروماتيزم و التأهيل مع أهداف و نواتج تعلم البرنامج

ملحق ٥: مصفوفة المقررات مع البرنامج Program-Courses ILOs Matrix

ملحق ٦: توصيف المقررات

Academic standard of the program:(١) ملحق

جامعة بنها
كلية الطب
قسم الروماتيزم والتأهيل والطب الطبيعى

وثيقة المعايير الأكاديمية المرجعية لبرنامج الماجستير

Academic Reference Standards (ARS) for Master Degree in Rheumatology, Rehabilitation and Physical Medicine

1. Graduate Attributes:

1-1 Proficient in application of the basics and methodologies of scientific research and the use of various tools.

1-2 application of the analytical methods and its use in the area of Rheumatology, rehabilitation and physical medicine.

1-3 Application of specialized knowledge in the field of Rheumatology, rehabilitation and physical medicine and combine it with other specialties like neurological diseases.

1-4 Show an awareness of the current problems and modern visions in the field of Rheumatology, rehabilitation and physical medicine .

1-5 Identifying professional problems and find solutions in the field of Rheumatology, rehabilitation and physical medicine like disability.

1-6 Specialized professional skills in - soft tissue injections and intrarticular injections and the use of appropriate technological means to serve the professional practice.

1-7 Effectively communicate and the ability to lead teams.

1-8 Decision making and allow issues covering the common and important areas in the field of physical therapy and physiotherapeutic

modalities, electrodiagnostic procedures, connective tissue diseases and emergencies.

1-9 Employ available resources to achieve the highest benefit.

1-10 Be aware with his role in community development and provide patients with disability and communication disorders solutions to modify their life.

1-11 Disposition reflecting the commitment to integrity, credibility and commitment to the rules of the profession.

1-12 Improve his academic and professional experience and be able to continuous learning.

2. Academic Standards:

2.1. Knowledge and understanding:

By the end of Master program, the graduate should recognize and understand the followings:

2.1.1 Theories, basic and specialized knowledge in the field of rheumatology ,rehabilitation and physical medicine as well as neurological conditions.

2.1.2 Mutual influence between professional practice and its impacts on the environment.

2.1.3 scientific developments in the field of Rheumatology, Rehabilitation and Physical Medicine.

2.1.4 Moral and legal principles of professional practice in the area of Rheumatology, Rehabilitation and Physical Medicine.

2.1.5 Principles and the basics of quality in professional practice in the area of rheumatology, rehabilitation and physical medicine.

2.1.6 Basics and ethics of scientific research.

2.2. Intellectual skills:

By the end of Master program, graduate should be able to recognize the followings:

2.2.1 Analyze and evaluate the information in the field of Rheumatology, Rehabilitation and Physical Medicine and analogies to solve problems.

2.2.2 Solve specialized problems in the field of Rheumatology, Rehabilitation and Physical Medicine with the unavailability of some data,

2.2.3 linkage between the various knowledge to solve problems.

2.2.4 Conducting a research study or writing a systematic scientific study on a research problem.

2.2.5 Risk Assessment in professional practices in the field of Rheumatology, Rehabilitation and Physical Medicinesuch as infection control, hazards of physiotherapy equipments.

2.2.6 Planning to improve the performance in the field of Rheumatology, Rehabilitation and Physical Medicine with attendance of different workshops, conferences in musculoskeletal ultrasound, soft tissues injections.

2.2.7 Decision-making in a variety of professional contexts.

2.3. Practical/Professional skills

By the end of Master program, graduate should accept the followings skills:

2.3.1 Mastering the basic and modern skills in the field of Rheumatology, Rehabilitation and Physical Medicine.

2.3.2 Writing and evaluating professional reports such as electromyographic reports.

2.3.3 Assess existing methods and tools to in the field of Rheumatology, Rehabilitation and Physical Medicine.

2.4. Communication and transferable skills:

By the end of Master program, graduate should accept the following skills:

2-4-1 Effective communication and interpersonal relationship to and arguments with other health care professionals.

2.4.2 Use of information technology and communication technology to remain up- to-date with advances in knowledge and practice.

2.4.3 Self-assessment and identify personal educational needs for continuous learning.

2.4.4 Use different sources to get the information and knowledge.

2.4.5 Put rules and indicators evaluating the performance of others.
2.4.6 Work in a team and time management.

2.4.7 Lead a team in professional familiar contexts.

2.4.8 Self and continuous learning for professional practice in the field of rheumatology, rehabilitation and physical medicine.

اعتماد مجلس القسم رقم (٢٠٠) ، بتاريخ ٢٠١٣/٧/٨

رئيس مجلس القسم

اعتماد مجلس الكلية

ملحق (٢):المعايير القياسية العامة للدراسات العليا الصادرة عن الهيئة

برامج الماجستير

١- موصفات الخريج:

خريج برنامج الماجستير فى أي تخصص يجب أن يكون قادرا على :

١-١ إجادة تطبيق أساسيات ومنهجيات البحث العلمى واستخدام أدواته المختلفة

١-٢ تطبيق المنهج التحليلى واستخدامه فى مجال التخصص

١-٣ تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة فى ممارسته المهنية

١-٤ إظهار وعيا بالمشاكل الجارية والرؤى الحديثة فى مجال التخصص

١-٥ تحديد المشكلات المهنية وإيجاد حلول لها

١-٦ إتقان نطاق مناسب من المهارات المهنية المتخصصة واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته المهنية

١-٧ التوصل بفاعلية والقدرة على قيادة فرق العمل

١-٨ اتخاذ القرار فى سياقات مهنية مختلفة

١-٩ توظيف الموارد المتاحة بما يحقق أعلى استفادة والحفاظ عليها

١-١٠ إظهار الوعى بدوره فى تنمية المجتمع والحفاظ على البيئة فى ضوء المتغيرات العالمية والاقليمية

١-١١ التصرف بما يعكس الالتزام بالنزاهه والمصداقية والالتزام بقواعد المهنة

١-١٢ تنمية ذاته أكاديميا ومهنيا وقادرا على التعلم المستمر

-2- المعايير القياسية العامة

٢-١ المعرفة والفهم :

بأنتهاء دراسة برنامج الماجيستير يجب ان يكون الخريج على فهم ودراية بكل من :

٢-١-١ النظريات والاساسيات المتعلقة بمجال التعلم وكذا فى المجالات ذات العلاقة

٢-١-٢- التأثير المتبادل بين الممارسة المهنية وانعكاسها على البيئة

٢-١-٣ التطورات العلمية فى مجال التخصص

٢-١-٤ المبادئ الاخلاقية والقانونية للممارسة المهنية فى مجال التخصص

٢-١-٥ مبادئ واساسيات الجودة فى الممارسة المهنية فى مجال التخصص

٢-١-٦ اساسيات واخلاقيات البحث العلمى

٢-٢ المهارات الذهنية :

بانتهاء دراسة برنامج الماجستير يجب ان يكون الخريج قادرا على :

٢-٢-١ تحليل وتقيم المعلومات فى مجال التخصص والقياس عليها لحل المشاكل

٢-٢-٢ حل المشاكل المتخصصة مع عدم توافر بعض المعطيات

٢-٢-٣ الربط بين المعارف المختلفة لحل المشاكل المهنية

٢-٢-٤ اجراء دراسة بحثية او كتابة دراسة علمية منهجية حول مشكلة بحثية

٢-٢-٥ تقييم المخاطر فى الممارسات المهنية فى مجال التخصص
٢-٢-٦ التخطيط لتطوير الاداء فى مجال التخصص
٢-٢-٧ اتخاذ القرارات المهنية فى سياقات مهنية متنوعة

٢-٣ المهارات المهنية

بانتهاء دراسة برنامج الماجستير يجب ان يكون الخريج قادرا على :

٢-٣-١ اتقان المهارات المهنية الاساسية والحديثة فى مجال التخصص
٢-٣-٢ كتابة وتقييم التقارير المهنية
٢-٣-٣ تقييم الطرق والادوات القائمة فى مجال التخصص

٢-٤ المهارات العامة والمنتقلة :

بانتهاء دراسة برنامج الماجستير يجب ان يكون الخريج قادرا على :

٢-٤-١ التواصل الفعال بأنواعة المختلفة
٢-٤-٢ استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية
٢-٤-٣ التقييم الذاتى وتحديد احتياجاته التعليمية
٢-٤-٤ استخدام المصادر المختلفة للحصول على المعلومات والمعارف
٢-٤-٥ وضع قواعد ومؤشرات تقييم اداء الأخرين
٢-٤-٦ العمل فى فريق سياقات مهنيه مختلفة
٢-٤-٧ ادارة الوقت بكفاءة
٢-٤-٨ التعلم الذاتى والمستمر.

ملحق (٣): مصفوفة المعايير الأكاديمية للبرنامج مع المعايير القياسية للدراسات العليا الصادرة عن الهيئة

- **مواصفات الخريج:**

مواصفات الخريج بالمعايير القياسية للدراسات العليا (درجة اماجستير)	مواصفات الخريج بالمعايير الأكاديمية للبرنامج
خريج برنامج الماجستير فى اى تخصص يجب ان يكون قادرا على : ١-١إجادة تطبيق أساسيات ومنهجيات البحث العلمى واستخدام أدواته المختلفة.	**1.1.**
١-٢تطبيق المنهج التحليلى واستخدامه فى مجال التخصص.	**1.3.**
١-٣ تطبيق المعارف المتخصصة ودمجها مع المعارف ذات العلاقة فى ممارسته المهنية.	**1.7.**
١-٤ إظهار وعيا بالمشاكل الجارية والرؤى الحديثة فى مجال التخصص.	**1.4.**
١-٥ تحديد المشكلات المهنية وإيجاد حلول لها.	**1.2.**
١-٦ إتقان نطاق مناسب من المهارات المهنية المتخصصة واستخدام الوسائل التكنولوجية المناسبة بما يخدم ممارسته	**1.3.**

المهنية.	
١-٧ التوصل بفاعلية والقدرة على قيادة فرق العمل.	**1.3.**
١-٨ اتخاذ القرار فى سياقات مهنية مختلفة.	**1.4.**
١-٩ توظيف الموارد المتاحة بما يحقق أعلى استفادة والحفاظ عليها.	**1.2.**
١-١٠ إظهار الوعى بدوره فى تنمية المجتمع والحفاظ على البيئة فى ضوء المتغيرات العالمية والاقليمية .	**1.4.**
١-١١ التصرف بما يعكس الالتزام بالنزاهه والمصداقية والالتزام بقواعد المهنة.	**1.6.**
١-١٢ تنمية ذاته أكاديميا ومهنيا وقادرا على التعلم المستمر.	**1.6.**

أ ـ المعرفة والفهم:

A- Knowledge and Understanding:

المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)	المعايير الأكاديمية للبرنامج
بأنتهاء دراسة برنامج الماجيستير يجب ان يكون الخريج على فهم ودراية بكل من: ٢-١-١ النظريات والاساسيات المتعلقة بمجال التعلم وكذا فى المجالات ذات العلاقة.	**2.a.1., 2.a.2., 2.a.8., 2.a.9., 2.a.10., 2.a.11.**
٢-١-٢- التأثير المتبادل بين الممارسة المهنية وانعكاسها على البيئة.	**2.a.4.**
٢-١-٣ التطورات العلمية فى مجال التخصص.	**2.a.6. , 2.a.7.**
٢-١-٤ المبادئ الاخلاقية والقانونية للممارسة المهنية فى مجال التخصص	**2.a.5.**
٢-١-٥ مبادئ واساسيات الجودة فى الممارسة المهنية فى مجال التخصص.	**2.a.3.**

٢-١-٦ اساسيات واخلاقيات البحث العلمى.	**2.a.6.**

ب ـ القدرات الذهنية :

B- Intellectual Skills:

المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)	**المعايير الأكاديمية للبرنامج**
بانتهاء دراسة برنامج الماجستير يجب ان يكون الخريج قادرا على : ٢-٢-١ تحليل وتقيم المعلومات فى مجال التخصص والقياس عليها لحل المشاكل.	**2.b.1., 2.b.2., 2.b.9. , 2.b.10.**
٢-٢-٢ حل المشاكل المتخصصة مع عدم توافر بعض المعطيات.	**2.b.1., 2.b.3., 2.b.8.**
٢-٢-٣ الربط بين المعارف المختلفة لحل المشاكل المهنية.	**2.b.3.**
٢-٢-٤ اجراء دراسة بحثية او كتابة دراسة علمية منهجية حول مشكلة بحثية.	**2.b.4., 2.b.5.,.**
٢-٢-٥ تقييم المخاطر فى الممارسات المهنية فى مجال التخصص.	**2.b.6.**

٢-٢-٦ التخطيط لتطوير الاداء فى مجال التخصص.	**2.b.8.**
٢-٢-٧ اتخاذ القرارات المهنية فى سياقات مهنية متنوعة.	**2.b.5., 2.b.7.**

ج - مهارات مهنية وعملية :

C- Clinical and professional Skills:

المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)	**المعايير الأكاديمية للبرنامج**
بانتهاء دراسة برنامج الماجستير يجب ان يكون الخريج قادرا على : ٢-٣-١ اتقان المهارات المهنية الاساسية والحديثة فى مجال التخصص.	**2.c.1., 2.c.2. , 2.c.4. , 2.c.5., 2.c.6.**
٢-٣-٢ كتابة وتقييم التقارير المهنية.	**2.c.7., 2.c.8.**
٢-٣-٣ تقييم الطرق والادوات القائمة فى مجال التخصص.	**2.c.3., 2.c.9., 2.c.10.**

د . مهارات عامة :

D- General and Transferable Skills:

المعايير القياسية العامة (Generic) لبرامج الدراسات العليا (درجة الماجستير)	**المعايير الأكاديمية للبرنامج**
بانتهاء دراسة برنامج الماجستير يجب ان يكون	**2.d.4.**

الخريج قادرا على: ٢-٤-١ التواصل الفعال بأنواعة المختلفة.	
٢-٤-٢ استخدام تكنولوجيا المعلومات بما يخدم الممارسة المهنية.	**2.d.2.**
٢-٤-٣ التقييم الذاتى وتحديد احتياجاته التعليمية.	**2.d.6.**
٢-٤-٤ استخدام المصادر المختلفة لحصول على المعلومات والمعارف.	**2.d.3.**
٢-٤-٥ وضع قواعد ومؤشرات تقييم اداء الآخرين.	**2.d.5.**
٢-٤-٦ العمل فى فريق سياقات كهنية مختلفة.	**2.d.5.**
٢-٤-٧ ادارة الوقت بكفاءة.	**2.d.5.**
٢-٤-٨ التعلم الذاتى والمستمر.	**2.d.1.**

ملحق (٤): مصفوفة مضاهاة المعايير الأكاديمية للبرنامج و أهداف و نواتج تعلم البرنامج

أهداف البرنامج	المعايير الأكاديمية للبرنامج (مواصفات الخريج):
1.1.	1.1. Proficient in application of the basics and methodologies of scientific research and the use of various tools.
1.3.	1.2. application of the analytical methods and its use in the area of Rheumatology, rehabilitation and physical medicine.
1.7.	1.3. Application of specialized knowledge in the field of Rheumatology, rehabilitation and physical medicine and combine it with other specialties like neurological diseases.
1.4.	1.4. Show an awareness of the current problems and modern visions in the field of Rheumatology, rehabilitation and physical medicine.
1.2.	1.5. Identifying professional problems and find solutions in the field of Rheumatology, rehabilitation and physical medicine like disability.
1.3.	1.6. Specialized professional skills in - soft tissue injections and intrarticular injections and the use of appropriate technological means to serve the professional practice.
1.3.	1.7. Effectively communicate and the ability to lead teams.
1.4.	1.8. Decision making and allow issues covering the common and important areas in the field of physical therapy and physiotherapeutic modalities, electrodiagnostic procedures, connective tissue diseases and emergencies.
1.2.	1.9. Employ available resources to achieve the highest benefit.
1.4.	1.10. Be aware with his role in community development and provide patients with disability and communication disorders solutions to modify their life.

1.6.	1.11. Disposition reflecting the commitment to integrity, credibility and commitment to the rules of the profession.
1.6.	1.12. Improve his academic and professional experience and be ab continuous learning.

المعايير الأكاديمية للبرنامج	نواتج تعلم البرنامج										
	المعرفه و الفهم										
	2.a.1.	2.a.2.	2.a.3	2.a.4	2.a.5	2.a.6	2.a.7	2.a.8	2.a.9	2.a.10	2.a.11
By the end of Master program, the candidate should recognize and understand the followings: 2.1.1 Theories, basic and specialized knowledge in the field of Roheumatology, rehabilitation and physical medicine as well as neurological conditions.	√	√						√	√	√	√
2.1.2 Mutual influence between professional practice and its impacts on the environment.				√							
2.1.3 scientific developments in the field of rheumatology ,rehabilitation and physical medicine.						√	√				

						√					2.1.4 Moral and legal principles of professional practice in the area of rheumatology, rehabilitation and physical medicine.
								√			2.1.5 Principles and the basics of quality in professional practice in the area of rheumatology, rehabilitation and physical medicine
					√						2.1.6 Basics and ethics of scientific research.

نواتج تعلم البرنامج										المعايير الأكاديمية للبرنامج
Intellectual skills										المهارات الذهنية
2.b.10	2.b.9	2.b.8	2.b.7	2.b.6	2.b.5	2.b.4	2.b.3	2.b.2.	2.b.1.	
√	√							√	√	***By the end of Master program, candidate should be able to recognize the followings:*** 2.2.1 Analyze and evaluate the information in the field of rheumatology, rehabilitation and physical medicine and analogies to solve problems.
		√					√		√	2.2.2 Solve specialized problems in the field of rheumatology, rehabilitation and physical medicine with the unavailability of some data

							√			2.2.3 linkage between the various knowledge to solve problems.
					√	√				2.2.4 Conducting a research study or writing a systematic scientific study on a research problem.
				√						2.2.5 Risk Assessment in professional practices in the field of rheumatology, rehabilitation and physical medicine such as infection control, hazards of physiotherapy equipments.
		√								2.2.6 Planning to improve the performance in the field of rheumatology, rehabilitation and physical medicine with attendance of different workshops, conferences in musculoskeletal ultrasound, soft tissues injections.
					√				√	2.2.7 Decision-making in a variety of professional contexts.

نواتج تعلم البرنامج	
Practical/Professional skills	

المعايير الأكاديمية للبرنامج المهارات المهنية	2.c.1.	2.c.2.	2.c.3	2.c.4	2.c.5	2.c.6	2.c.7	2.c.8	2.c.9	2.c.10
By the end of Master program, candidate should accept the followings skills: 2.3.1 Mastering the basic and modern skills in the field of rheumatology, rehabilitation and physical medicine.	√	√		√	√	√				
2.3.2 Writing and evaluating professional reports such as electromyographic reports.							√	√		
2.3.3 Assess existing methods and tools to in the field of rheumatology, rehabilitation and physical medicine.			√						√	√

المعايير الأكاديمية للبرنامج المهارات العامة والمنتقلة	نواتج تعلم البرنامج General and transferable skill					
	2.d.1.	2.d.2.	2.d.3	2.d.4	2.d.5	2.d.6

		√				**By the end of Master program, candidate should accept the following skills:** 2-4-1 Effective communication and interpersonal relationship to and arguments with other health care professionals.
				√		2.4.2 Use of information technology and communication technology to remain up- to-date with advances in knowledge and practice.
√						2.4.3 Self-assessment and identify personal educational needs for continuous learning.
			√			2.4.4. Use different sources to get the information and knowledge.
	√					2.4.5. Put rules and indicators evaluating the performance of others.
	√					Work in a team and time 2.4.6. management.
	√					2.4.7 . Lead a team in professional familiar contexts.
					√	2.4.8. Self and continuous learning for professional practice in the field of rheumatology, rehabilitation and physical medicine.

ملحق (٥) : مصفوفة المعارف والمهارات للبرنامج الدراسى

Courses & Codes / ILOs		Knowledge & Understanding 2.a.										
		1	2	3	4	5	6	7	8	9	10	11
1- Applied Anatomy	RHUM 601	■										
2- Applied Physiology	RHUM 602	■							■			
3- Internal Medicine	RHUM 603					■	■					
4- Applied Physics	RHUM 604									■		
5- Rheumatology	RHUM 606/ 608	■	■	■	■	■	■				■	■
6- Rehabilitation Medicine	RHUM 607/ 609/ 610	■	■	■	■	■	■	■				

أستاذ المادة رئيس القسم

التوقيع: التوقيع :

ILOs Courses & Codes		Intellectual Skills 2.b.										
	RHUM 601	1	2	3	4	5	6	7	8	9	10	11
1- Applied Anatomy				■								
2- Applied Physiology	RHUM 602			■								
3- Internal Medicine	RHUM 603						■	■				
4- Applied Physics	RHUM 604				■	■						
5- Rheumatology	RHUM 606/ 608	■	■		■		■	■	■	■		
6- Rehabilitation Medicine	RHUM 607/ 609/ 610	■	■		■	■	■	■		■	■	■

أستاذ المادة رئيس القسم

التوقيع

التوقيع :

Courses & Courses	ILOs	Practical & Clinical Skills 2.c.									
		1	2	3	4	5	6	7	8	9	10
5- Applied Anatomy	RHUM 601					■					
6- Applied Physiology	RHUM 602					■					
7- Internal Medicine	RHUM 603	■									
8- Applied Physics	RHUM 604										■
5- Rheumatology	RHUM 606/ 608	■	■		■			■		■	■
6- Rehabilitation Medicine	RHUM 607/ 609/ 610	■	■	■	■	■	■		■		■

أستاذ المادة

التوقيع:

رئيس القسم

التوقيع :

ILOs Courses& Codes		General & transferable 2.d.					
	RHUM 601	1	2	3	4	5	6
1- Applied Anatomy		■					
2- Applied Physiology	RHUM 602	■					
3- Internal Medicine	RHUM 603	■	■				
4- Applied Physics	RHUM 604		■				
5- Rheumatology	RHUM 606/ 608	■	■	■	■	■	
6- Rehabilitation Medicine	RHUM 607/ 609/ 610	■	■	■	■	■	■

أستاذ المادة

التوقيع:

رئيس القسم

التوقيع :

ملحق (٦): توصيف المقررات

Course Specifications

First part
1- Applied Anatomy
2- Applied Physiology
3- Internal medicine
4- Applied Physics
Second part
5- Rheumatology
6- Rehabilitation medicine

Applied Anatomy Course Specification

- **Course Title:** Applied Anatomy,
- **Code:** RHUM **601**
- **Department offering the course:** Anatomy and Embryology Department,
- **Academic year of program:** 2013-2014,
- **Department element of program:** Minor,
- **Academic Level:** 1st Part.
- **Date of specifications approval:**
  - Department Council: 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).
  - **Allocated marks: 75 marks**,
- **Course duration: 15 weeks** of teaching,
- **Credit hours:** One and half hour/week = **22½ total credit hours**

Item	Hours / week	Total hours
1- Lectures	½/week	7½
2- Small group teaching / tutorials	½/week	7½
3- Practical	½/week	7½
Total	1½/week	**22½**

B- Professional Information:

1. Overall Aims of Course

The overall goals of this course are to:

- ***Understand*** the anatomy and surface landmarks of major joints and soft tissue structures,

- ***Apply*** knowledge of the appropriate system structures relevant to rheumatology and musculoskeletal medicine,
- ***Succeed*** to make a proper diagnosis of different musculoskeletal disorders of nerves, muscles, joints and central nervous system.
- ***Improve*** the standards of knowledge by self-education as a researcher and specialist in the field of Rheumatology, Rehabilitation and Physical Medicine.

2. Intended Learning Outcomes of Course (ILOs)

2.a. Knowledge and Understanding:

By the end of the course, students should be able to:

2.a.1. List different joint types in human body (upper limb, lower limb and vertebral column),

2.a.2. Describe the anatomical structure and biomechanics of different joint types (stability and movements),

2.a.3. Outline nerves and plexuses of the upper and lower limb,

2.a.4. Define the origin and insertion of the muscles of upper, lower limbs and back,

2.a.5. Illustrate cranial nerves,

2.a.6. Discuss cortical areas of the brain and define pyramidal tract & extra pyramidal tract.

2.B. Intellectual skills:

By the end of the course, students should be able to:

2.b.1. Evaluate the outcome of surgical correction,

2.b.2. Correlate basic science of anatomy to connective tissue, bone, joint, and muscle diseases,

2.b.3. classify sites of the nerve compression,

2.b.4. Interpret physical tests to evaluate musculoskeletal disorders,

2.b.5. Analyze biomechanical principles of joint function in the prescription of orthoses and prostheses,

2.b.6. Interpret sites of neurological injuries.

2.c. Practical and professional Skills*:*

By the end of the course, students should be able to:

2.c.1. write the dermatomal and myotomal supply of the body,

2.c.2. Draw the accurate surface marking and anatomical landmarks needed for injecting joints and soft tissue rheumatic disorders,

2.c.3. Make algorithm in calculating the patient age,

2.c.4. Perform how to correct different alignment,

2.c.5. Assess the progress of different deformities,

2.c.6. Plan examination protocols in evaluating musculoskeletal disorders.

2.d. General and transferable skills:

By the end of this course, students should be able to:

2.d.1. ***Retrieve*** information and communication technology effectively in the field of anatomy.

3- Course Contents

Subject	Lectures (hrs)	Small group (hrs)	Practical (hrs)	Total (hrs)	% of total
1) GENERAL ANATOMY - Bones, - Joints (classification, structure& movements), - Muscles (types, features & characters of	**1½**	**1½**	**1½**	**4½**	**20%**

skeletal muscles), - Nerves (spinal & motor cranial), - Autonomic nervous system (centers, nerves & ganglia), -Ligaments & fasciae.					
2) NECK AND TRUNK - Vertebral canal & vertebral foramina, - Posture, - Body weight transmission, - Ligaments & fasciae, - Muscles, - Joints, - Movements, - Intervertebral disc, - Diaphragm, - Heart & pericardium, - Respiratory system, - Respiratory muscles movements.	**1½**	**1½**	**2½**	**5½**	**24%**
3) UPPER AND LOWER LIMBS - Muscles,	**2½**	**2**	**2**	**6½**	**29%**

- Nerves, - Joints, - Ligaments & fasciae, - Stability, - Nerve plexuses, - Development, - Hand, - Foot, - Arches of the foot, - Grip-force transmission, - Mechanisms of walking, running & standing.					
4) NEUROANATOMY - Brain & spinal cord: (blood supply & meninges), - Internal capsule: (afferent & efferent pathways), Nerve plexuses: (formation, relations & branches).	**2**	**2½**	**1½**	**6**	**27%**
Total	**7½**	**7½**	**7½**	**22½**	**100%**

4-Teaching and Learning Methods

Methods used:

1. Modified Lectures,
2. Small group discussions,
3. Practical classes.

5. Student Assessment Methods

5-A) Attendance Criteria: 75% is the minimum acceptable attendance.

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding and intellectual skills
Oral examination	To assess knowledge& understanding, intellectual skills and general & transferable skills
Practical examination	To assess clinical & practical skills.

5-C) Time Schedule:

Final Exam	Week
- **Written,** - **Oral,** - **Practical.**	**At week 24** (end of 1st part)

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks

a- Written	25	**33%**
b- Practical	25	**33%**
c- Oral	25	**33%**
Total	**75**	**100%**

Students will pass if they get at least 50% in the written exam and at least 60% in all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written	Short assay questions,
b- Practical	Pieces to define and discuss,
c- Oral	One Session

6. List of References

6.1. Essential Books (Text Books):

Gray's Anatomy standing et al 2008

6.2. Recommended Books:

Colored Atlas of Human anatomy and Embryology.: T.W2010

6.3 - Periodicals, Web sites, … etc:

7- Facilities required for teaching and learning:

- Lecture halls,
- Small group classes,
- Museum, morgue,

- Information technology / AV aids: computers, data shows and CD-ROMs,
- Models.

مقرر التشريح التطبيقى:

Course Professor:	Signature & date:
Head of department:	Signature & date:

-

Applied Physiology Course Specification

- **Course Title:** Applied Physiology,
- **Code:** RHUM **602**

- **Department offering the course:** Physiology Department,
- **Academic year of program**: 2013-2014,
- **Department element of program**: Minor,
- **Academic Level**: 1st Part.
- **Date of specifications approval**:
  - **Department Council:** 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).

A- Basic Information:

- **Allocated marks:75** marks,
- **Course duration:** 15 weeks of teaching,
- **Credit hours:** One and half hour/week = **22½** total credit hours

Item	Hours / week	Total hours
1- Lectures	½/week	7½
2- Small group teaching / tutorials	½/week	7½
3- Practical	½/week	7½
Total	1½/week	**22½**

B- Professional Information:

1. Overall Aims of Course

The overall goals of this course are to:

- ***Respond*** to the educational and research training needs of doctors with a special interest in Rheumatology, Rehabilitation and Physical Medicine.

- ***Prepare*** a Rheumatology, Rehabilitation and Physical Medicine physician oriented with the physiology of muscle and nerve, CNS and endocrine.
- ***Provide*** graduates with enough knowledge about the regulation of body temperature, body fluids, homeostasis.
- ***Improve*** students' standards of knowledge by self-education as a researcher and specialist in the field of Rheumatology, Rehabilitation and Physical Medicine.

2. Intended Learning Outcomes of Course (ILOs)

2.a. Knowledge and Understanding:

By the end of the course, students should be able to:

2.a.1. Illustrate the physiology of the muscle contraction and relaxation.

2.a.2. Write the normal physiological changes in exercise.

2.a.3. Identify action potentials and motor end plate.

2.b.4. Mention the different types of receptors.

2.a.5. Describe the nature of pain and pain control systems.

2.a.6. Name types of nerve and muscle fibers.

2.a.6. List central control of movement and sensations.

2.a.7. Recognize electrodiagnostic tests of nerves and muscles.

2.b. Intellectual skills:

By the end of the course, students should be able to:

2.b.1. Assess the balance of body fluids and electrolyte homeostasis.

2.b.2. Differentiate between the types and nature of pain perceived by the patient.

2.b.3. Evaluate the patient response of exercise.

2.b.4. Define methods of chronic pain control in different musculoskeletal disorders.

2.C. Practical and professional Skills

By the end of the course, students should be able to:

2.c.1. Draw the pathway for each type of sensation.

2.c.2. Apply model for gate theory in management plan of patients with musculoskeletal disorders.

2.c.3. Show body response to temperature changes.

2.c.4. Plan investigational and therapeutic programs in the management of musculoskeletal disorders.

2.d. General and transferable skills:

By the end of the course, students should be able to:

2.d.1. ***Retrieve*** information and communication technology effectively in the field of Physiology to conduct researches in Rheumatology, Rehabilitation and Physical Medicine.

3- Course Contents

Topic	Lectures (hrs)	Small group (hrs)	Practical (hrs)	Total (hrs)	% of total
1) MUSCLES AND NERVES - Nerve, - Skeletal Muscle.	**1**	**1½**	**1½**	**4**	**18%**
2) CENTRAL NERVOUS SYSTEM - Neurotransmitters, - Receptors, - Synapses, - Somatic sensations, - Sensory areas of cerebral cortex, - Pain & pain control system, - Spinal cord lesions,	**2 ½**	**2**	**2**	**6½**	**29%**

- Motor areas of cerebral cortex, - Descending pyramidal & extra-pyramidal tracts,. - Stretch reflex & muscle tone, - Basal ganglia, - Cerebellum.					
3) CIRCULATION - Arterial blood pressure & its regulation, - Capillary circulation, - Edema.	**1½**	**1**	**1**	**3½**	**16%**
4) RESPIRATION - Hypoxia.	**½**	**½**	**½**	**1½**	**7%**
5) BLOOD - Anemia.	**½**	**½**	**½**	**1½**	**7%**
5) METABOLISM - Obesity, - Sports physiology.	**½**	**½**	**1**	**2**	**9%**
6) ENDOCRINE - Thyroid hormones, - Parathyroid hormones, - Calcium homeostasis.	**½**	**1**	**½**	**2**	**9%**
7) KIDNEY - Water & electrolytes balance.	**½**	**½**	**½**	**1½**	**7%**
Total	**7½**	**7½**	**7½**	**22½**	**100%**

Teaching plan:

Lectures: Large group sessions in the lecture theatre at the department using data shows,

Tutorials: Division of students into small groups.

Practical classes: At laboratory.

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	1 time/week, between 9 am to 10 am	½ hour	½
Practical	1 time/week between 10 am to 1 pm	1½ hour	**1½**
Tutorial	1 time/week between 1 pm to 2 pm	½ hour	½
Total	**2½**		

5. Student Assessment Methods

5-A) Attendance Criteria: 75% is the minimum acceptable attendance.

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding
Oral examination	To assess knowledge& understanding, intellectual skills and general & transferable skills
Practical examination	To assess practical & clinical skill

5- C) Time Schedule:

Final Exam	Week

- **Written,** - **Oral,** - **Practical.**	**At week 24 ,** (end of 1st part)

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks
a- Written	25	**33%**
b- Practical	25	**33%**
c- Oral	25	**33%**
Total	**75**	**100%**

Students will pass if they get at least 50% in the written exam and at least 60% in all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written	Short assay questions,
b- Practical	Experiment to report and discuss,
c- Oral	One Session

6. List of References

6.1- Essential Books (Text Books): Gyuton's Textbook**. 2008**

7- Facilities required for teaching and learning:

- Lecture halls,
- Small group classes,
- Laboratory,
- Information technology / AV aids: computers data shows and CD-ROMs.

مقرر الفسيولوجى:

Course Professor:	Signature & date:
Head of department:	Signature & date:

Internal Medicine Course Specification

- **Course Title:** Internal Medicine.
- **Code:** RHUM **603**
- **Department offering the course:** Internal Medicine Department,
- **Academic year of program:** 2013-2014,
- **Department element of program**: Minor,
- **Academic Level:** 1st Part.
- **Date of specifications approval:**
  - **Department Council:** 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).

A- Basic Information:

- **Allocated marks: 75 marks**,
- **Course duration: 15 weeks** of teaching,
- **Credit hours:** One and half hour/week = **22½** total credit hours

Item	Hours / week	Total hours
1- Lectures	½/week	7½
2- Small group teaching / tutorials	½/week	7½
3- Practical	½/week	7½
Total	1½/week	22½

B- Professional Information:

1. Overall Aims of Course

The overall goals of this course are to:

- ***Respond*** to the educational and research training needs of doctors with a special interest in Rheumatology, Rehabilitation and Physical Medicine.

- ***Prepare*** a Rheumatology, Rehabilitation and Physical Medicine physician capable of making a proper diagnosis of different rheumatic diseases on the basis of adequate history, physical examination and interpretation of supportive investigation.
- ***Provide*** graduates with enough knowledge about disorders of internal organs relevant to systemic rheumatic diseases.
- ***Improve*** students' standards of awareness of self-education as researchers and specialists in the field of Rheumatology, Rehabilitation and Physical Medicine.

2. Intended Learning Outcomes of Course (ILOs)

2.a- Knowledge and Understanding:

By the end of the course, students should be able to:

2.a.1. Discuss cardiovascular system: heart rate, rheumatic fever, coronary heart disease, hypertension, infective endocarditis, pulmonary embolism, pulmonary hypertension and blood disease (anemia and Bleeding diathesis).

2.a.2. Define gastrointestinal hemorrhage, dyspepsia, chronic diarrhea, hepatitis (acute and chronic), Jaundice, inflammatory bowel diseases, renal failure, glomerulonephritis, nephritic, nephritic syndrome,

2.a.3. Memorize endocrinal disorders of the pituitary, thyroid, suprarenal and parathyroid glands

2.b.4. Identify causes and presentations of asthma, pneumonia, obstructive pulmonary disease, pleural effusion, infection in the immune compromised host.

2.a.5. Define ethical and medico-legal basics of internal medicine related to Rheumatology, Rehabilitation and Physical Medicine.

2.a.6. Identify professional knowledge, and theories in the field of internal medicine relevant to Rheumatology, Rehabilitation and Physical Medicine.

2.a.7. Define basics of quality and professional performance.

2.a.8. Describe effect of professional performance on community health and environment protection.

2.b- Intellectual skills:

By the end of the course, students should be able to:

2.b.1. Explain the scientific basis of patients' evaluation in the differential diagnosis of rheumatic diseases**.**

2.b.2. List indications and laboratory tests and imaging procedures used in diagnosis and management of rheumatic diseases.

2.b.3. Evaluate risk factors, problems, in chronological manner.

2.b.4. Solve specific problems in atypical situations.

2.b.5. Organize practical decisions according to available knowledge.

2.c Practical and professional Skills*:*

By the end of the course, students should be able to:

2.c.1. Examine patients including specific examinations of structure and function of musculoskeletal and neurological systems.

2.c.2. Design controlled clinical trials in rheumatic diseases.

2.c.3. Apply medical practical skills and recent techniques in the field of Rheumatology, Rehabilitation and Physical Medicine.

2.c.4. Construct practical reports, investigational and therapeutic programs in the management of rheumatic and musculoskeletal disorders.

2.d- General and transferable skills:

By the end of the course, students should be able to:

2.d.1. Retrieve information and communication technology effectively in the field of Internal Medicine to conduct researches in Rheumatology, Rehabilitation and Physical Medicine.

2.d.2. Categorize continuous self-learning requirements following updates in the practice of Internal Medicine.

2.d.3. Communicate ideas effectively with other specialties.

2.d.4. Organize scientific meetings of different sources for achieving knowledge and information.

2.d.5. Apply working in a team and time mapping, operate with other rheumatologists and be able to analyze their performance.

3- Course Contents

Topic	Lectures (hrs)	Small group (hrs)	Clinical (hrs)	Total (hrs)	% of total
1) NEUROLOGY - Hemiplegia, - Paraplegia, - Peripheral neuropathy, - Myopathy, - Cranial nerves, - Parkinsonism.	**1½**	**1½**	**1½**	**4½**	**20%**
2) CARDIOLOGY - Hypertension, - Heart failure, - Pericardial effusion, - Ischemic heart disease.	**1**	**1½**	**1½**	**4**	**18%**
3) NEPHROLOGY. - Glomerulonephritis, - Nephrotic syndrome, - Renal failure, - Heamaturia.	**½**	**1**	**---**	**1½**	**7%**
4) CHEST DISEASES - Tuberculosis**,** - Pleural diseases, - Bronchial asthma, - Chronic obstructive pulmonary disease (COPD), - Interstitial pulmonary disease,	**1**	**1**	**2**	**4**	**18%**

5) BLOOD DISEASES - Anemia, - Hemorrhagic blood diseases, - Iron overload.	½	½	-----	1	4%
6) ENDOCRINE DISEASES - Diabetes, - Thyroid diseases, - Suprarenal gland diseases.	1½	½	1	3	13%
7) RHEUMATOLOGY - Gout	½	½	½	1½	7%
8) ACID-BASE BALANCE	½	½	½	1½	7%
9) Na^+ & K^+ ABNORMALITIES	½	½	½	1½	7%
Total	7½	7½	7½	22½	100%

4-Teaching and Learning Methods

Methods used:

1- Lectures,

2- Small group discussions,

3- Problem solving sessions,

4- Practical classes.

Teaching plan:

Lectures: Large group sessions in the lecture theatre at the department using data shows,

Tutorials: Division of students into small groups.

Clinical classes: At in-patients wards.

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	1 time/week, between 9 am to 10 am	½ hour	½
Practical	1 time/week between 10 am to 1 pm	1½ hour	**1½**
Tutorial	1 time/week between 1 pm to 2 pm	½ hour	½
Total	**2½**		

5. Student Assessment Methods

5-A) Attendance Criteria: 75% is the minimum acceptable attendance.

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding
Oral examination	To assess knowledge& understanding, intellectual skills and general &transferable skills
Clinical examination	To assess practical &clinical skill

5-C) Time Schedule:

Final Exam	Week
- **Written,** - **Oral,** - **Clinical.**	**At week 24** (end of 1st part)

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks
a- Written	25	**33%**
b- Practical	25	**33%**
c- Oral	25	**33%**
Total	**75**	**100%**

Students will pass if they get at least 50% in the written exam and at least 60% in all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written	Short assay questions,
b- Clinical	A short case to present and discuss,
c- Oral	One Session

6. List of References

6.1- Essential Books (Text Books): Davidson, s principles& practice of medicine 21 edition

6.2- Periodicals, Web sites, … etc..

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls,
- Small group classes,
- Information technology / AV aids: computers, data shows and CD-ROMs.

مقرر الباطنة العامة:

Course Professor:	Signature & date:
Head of department:	Signature & date:

Applied Physics Course Specification

- **Course Title:** Applied Physics.
- **Code: RHUM 604**
- **Department offering the course** Rheumatology, Rehabilitation and Physical Medicine
- **Academic year of program:** 2013-2014,
- **Department element of program**: Minor,
- **Academic Level:** 1st Part.
- **Date of specifications approval:**
  - **Department Council:** 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).
  - **A- Basic Information:**
- **Allocated marks: 75 marks**,
- **Course duration: 15 weeks**,
- **Credit hours:** One and half hour/week = **22½** total **credit** hours

Item	Hours / week	Total hours
1- Lectures	½/week	7½
2- Small group teaching / tutorials	½/week	7½
3- Practical	½/week	7½
Total	1½/week	**22½**

B- Professional Information

5- Overall aims of the course:

The overall goals of the course are to:

- ***Respond*** to the educational and research training needs of doctors with a special interest in Rheumatology, Rehabilitation and Physical Medicine.

- ***Make*** candidates qualified in observation and integration of progress in Rehabilitation and Physical Medicine.
- ***Maintain*** students' standards of knowledge as researchers and specialists in the field of Rehabilitation and Physical Medicine by self-education and continuous learning.

2- Intended Learning Outcomes of the Course (ILOs)

2.a- Knowledge and Understanding:

By the end of the course, students should be able to:

2.a.1. Recognize different therapeutic electrical currents (Faradic, Galvanic, Didynamic, Interferential and Transcutaneous Electrical Stimulation).

2.a.2. Identify the electromagnetic spectrum.

2.a.3. Identify types and therapeutic applications of cryotherapy.

2.b.4. ***Discuss*** resistance, capacitance, inductance, impedance and magnetism.

2.a.5. Outline ultrasonic, short and micro- waves

2.a.6. Illustrate different therapeutic heating modalities (superficial and deep).

2.a.7. Recognize electrodiagnostic tests of nerves and muscles.

2. b- Intellectual Skills:

By the end of the course, students should be able to:

2.b.1. List different physical modalities in rehabilitation medicine.

2.b.2. Realize indications of electrotherapy in patients with musculoskeletal, neurological and other medical disorders. .

2.b.3. Recognize outcome of physical modalities (heat, cold, light and electricity) in rehabilitation medicine.

2.c- Practical and professional Skills

By the end of the course, students should be able to:

2.c.1. Design programs for management of musculoskeletal disorders using different physical modalities.

2.c.2. Construct clinical trials relevant to the practice of Rehabilitation and Physical Medicine utilizing physical modalities.

2.d- General and transferable Skills:

By the end of the course, students should be able to:

2.d.1. Retrieve information and communication technology effectively in the field of Applied Physics to conduct researches relevant to Rehabilitation and Physical Medicine.

2.d.2. Communicate ideas effectively.

2.d.3. Work effectively within a team.

3- Course Contents

Topic	Lectures (hrs)	Small group (hrs)	Practical (hrs)	Total (hrs)	% of total
1) SCIENTIFIC BASIS - Physiology of Pain, -Heating of Biological Tissues.	½	½	½	1½	7%
2) ELECTROTHERAPY - The Faradic and Sinusoidal Currents, - The Constant and Modified Direct Current, - Interferential Current. - Transcutaneous Electrical Nerve Stimulation (TENS), - Didynamic Current, - Functional Electrical Stimulation.	2	2	2	6	27%

3) DEEP HEATING MODALITIES - Shortwave Diathermy, - Microwave Diathermy, - Ultrasound Therapy.	**1½**	**2**	**1½**	**5**	**22%**
4) SUPERFICIAL HEATING MODALITIES - Infra-Red radiations, -Hot Packs and Paraffin baths.	**1**	**1**	**1**	**3**	**13%**
5) COLD THERAPY	**1**	**½**	**½**	**2**	**9%**
6) LIGHT THERAPY (LASER)	**½**	**½**	**½**	**1½**	**7%**
7) MAGNETIC FIELD THERAPY	**1**	**1**	**1½**	**3½**	**16%**
Total	**7½**	**7½**	**7½**	**22½**	**100%**

4-Teaching and Learning Methods

Methods used:

1- Lectures,

2- Small group discussions,

3- Practical classes.

Teaching plan:

Lectures: Large group sessions in the lecture theatre at the department using data show,

Tutorials: Division of students into small groups,

Practical classes: At the Physiotherapy unit.

Time plan:

Item	Time schedule	Teaching hours	Total hours

Lectures	1 time/week, between 9 am to 10 am	½ hour	½
Practical	1 time/week between 10 am to 12 pm	1½ hour	**1½**
Tutorial	1 time/week between 1 pm to 2 pm	½ hour	½
Total	**2½**		

5. Student Assessment Methods

5-A) Attendance Criteria: 75% of credit hours is the minimum acceptable **attendance.**

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding
Oral examination	To assess knowledge& understanding, intellectual skills and general &transferable skills
Clinical examination	To assess practical &clinical skill

5-C) Time Schedule:

Final Exam	Week
- **Written,** - **Oral,** - **Practical.**	**At week 24** (end of 1st part)

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks
a- Written	25	**33%**
b- Practical	25	**33%**
c- Oral	25	**33%**
Total	**75**	**100%**

Students will pass if they get at least 50% of written exams and 60% of all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written	Short assay questions,
b- Practical	Discussion on equipments,
c- Oral	One/two Sessions.

6. List of References

6.1- *Essential Text Books:*

- Electrotherapy explained: principles and practice by V Robertson (2006),
- Clayton's electrotherapy by Kitchen and Bazin (1996),
- Therapeutic modalities by W E Prentice (2002),
- Principles and practice of electrotherapy by J Kahn (2000).

7- Facilities for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls,
- Small group classes,
- Information technology / AV aids: computers and data shows,
- Physiotherapy equipments.

مقرر الطبيعة التطبيقية:

Course Professor:	Signature & date:
Head of department:	Signature & date:

Rheumatology Course Specification

- **Course Title:** Rheumatic diseases and Immunology.
- **Code:** RHUM **606, 608**
- **Department offering the course:** Rheumatology, Rehabilitation and Physical Medicine.
- **Academic year of program:** 2013-2014,
- **Department element of program:** Major,
- **Academic Level:** 2nd part.
- **Date of specifications approval:**
  - **Department Council** 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).

A) Basic Information:

- **Allocated marks:** 300 marks,
- **Course duration:** 30 weeks of teaching,
- **Credit hours:** 6 hours/week = **180** total **credit** hours

Item	Hours / week	Total hours
1- Lectures	**2**	**60**
2- Small group teaching / tutorials	**1**	**30**
3- Clinical	**2**	**60**
4- Scientific meeting	**1**	**30**
Total	**6**	**180**

B- Professional Information:

1. Overall Aims of Course

The overall goals of the course are to:

- ***Give*** students an appropriate background covering rheumatic diseases as regard causes, pathogenesis, diagnosis and management.
- ***Build-up*** the students' ability to formulate differential diagnoses of rheumatic diseases.
- ***Provide*** students with the skill to organize treatment plans for rheumatic diseases.
- ***Allow*** students to practice problem solving and decision-making in atypical clinical situations.
- ***Support*** the students' trend for evidence-based medicine practice to support up profession in Rheumatology, Rehabilitation and Physical Medicine.
- ***Provide*** students with lifelong learning talent necessary for continuous professional development and research establishment.
- ***Provide*** students with the professional ethical values essential to demonstrate appropriate attitude towards patients and colleagues.
- ***Allow*** students to have the skills necessary for proper patients' interrogation and evaluation.
- ***Provide*** students with appropriate professional education necessary to manage and organize health problems within the community.

2- Intended Learning Outcomes (ILOs)

2.a. Knowledge and Understanding:

By the end of the course, the students will be able to:

2.a.1. List current and emerging data on the pathogenesis and management of different rheumatic diseases.

2.a.2. Recognize legal and ethical principles for professional practice consistent with values of proper medical conduct.

2.a.3. Outline common physical and rheumatic emergencies.

2.a.4. Identify objectives for clinical trials in the field Rheumatology, Rehabilitation and Physical Medicine.

2.a.5. Accomplish an enhanced patients' health outcome through the development of a humanized rehabilitation service in the community.

2.b. Intellectual Skills:

By the end of the course, students should be able to:

2.b.1. Analyze symptoms and signs of patients and construct differential diagnoses for the different rheumatic diseases.

2.b.2. Point-out an investigational plan for patients regarding disease presentations and interpret the results of used diagnostic procedures to solve professional problems.

2.b.3. Contribute to designing researches for the pathogenesis, diagnosis and treatment of different rheumatic diseases.

2.b.4. Write scientific subjects of recent information related to Rheumatology, Rehabilitation and Physical Medicine.

2.b.5. Identify the indications and rationale of referring patients to other related specialties according to risks and severity.

2.b.6. Discuss advance in rehabilitation approaches and management of rheumatic diseases based on recent data, evidence-based medicine and professional vision for future developmental plans.

2.c. Practical and professional Skills

By the end of the course, students should be able to:

2.c.1. Demonstrate skills to perform intra-articular, soft tissue and botulinum injections.

2.c.2. Recognize challenges in Rheumatology, Rehabilitation and Physical medicine.

2.c.3. Demonstrate better awareness of current practice and technological means for management of rheumatological emergencies.

2.c.4. Identify prospects for future developments within Rheumatology, Rehabilitation and Physical Medicine.

2.c.5. Contribute specific knowledge and skills of Rheumatology, Rehabilitation and Physical Medicine to other specialties to improve joint communication.

2.d. General and Transferable Skills

By the end of the course, students will be able to:

2.d.1. Communicate effectively with other health care professionals to discuss and exchange ideas and arguments.

2.d.2. Uses sources of biomedical information and communication technology to remain up- to-date with advances in knowledge and practice.

2.d.3. Retrieve scientific information clearly to others in written, electronic and oral forms to improve performance.

2.d.4. Determine personal learning needs required for continuous professional development.

2.d.5. Use the sources of biomedical information and communication technology to teach others and evaluate their clinical practice.

2.d.6. Work effectively with an interdisciplinary team within time-planned shared programs.

3- Course Contents

Subject	Lectures (hrs)	Small group (hrs)	Clinical & Practical (hrs)	Total (hrs)	% of total
1) Approach to painful joints	**2**	**1**	**1**	**4**	**2%**
2) Molecular and cellular basis of immunology ▪ Inflammatory cells, ▪ Mediators of inflammation, ▪ Complement system. ▪ Inflammatory response. ▪ Immune response, ▪ Autoantibodies, ▪ Antinuclear antibodies.	**10**	**4**	**6**	**20**	**11%**
3) Systemic Rheumatic Disease ▪ Rheumatoid Arthritis and associated syndromes, ▪ Antiphospholipid Syndrome, ▪ Dermatomyositis/ Polymyositis, ▪ Eosinophilia-Myalgia Syndrome, ▪ Eosinophilic Fasciitis, ▪ Mixed Connective-Tissue Disease, ▪ Scleroderma, ▪ Sjogren Syndrome, ▪ Systemic Lupus Erythematosus, ▪ Undifferentiated	**12**	**2**	**16**	**30**	**17%**

Connective-Tissue Disease.					
4) Crystal-Induced Arthritis ▪ Calcium Pyrophosphate Deposition Disease, ▪ Gout.	**3**	**1**	**4**	**8**	**4%**
5) Infectious Arthritis ▪ Gonococcal Arthritis, ▪ Lyme disease, ▪ Nongonococcal Infectious Arthritis, ▪ Viral Arthritis.	**5**	**---**	**3**	**8**	**4%**
6) Osteoarthritis	**1**	**1**	**1**	**3**	**2%**
7) Metabolic and Bone Disease ▪ Amyloidosis, ▪ Avascular Necrosis, ▪ Hypertrophic osteoarthropathy, ▪ Osteoporosis, ▪ Paget disease.	**3**	**2**	**3**	**8**	**8%**
8) Systemic Diseases Associated with Arthritis	**3**	**---**	**2**	**5**	**3%**
9) Miscellaneous Inflammatory Arthritis ▪ Acute rheumatic fever, ▪ Endocrinal arthropathy, ▪ Arthritis as a manifestation of systemic disease, ▪ Mediterranean fever,	**10**	**3**	**2**	**15**	**8%**

▪ Palindromic rheumatism.					
10) Soft Tissue and Regional Rheumatic Disease ▪ Dupuytren contracture, ▪ Fibromyalgia, ▪ Localized fibro sing disorders, ▪ Non-articular rheumatism/Regional pain syndrome, ▪ Reflex Sympathetic Dystrophy.	**6**	**2**	**2**	**10**	**5%**
11) Spondyloarthropathies ▪ Ankylosing Spondylitis and Undifferentiated Spondyloarthropathy, ▪ Enteropathic Arthropathies, ▪ Psoriatic Arthritis, ▪ Reactive Arthritis.	**5**	**1**	**2**	**8**	**4%**
12) Vasculitides ▪ Behcet Disease, ▪ Henoch Schonlein Purpura, ▪ Churg-Strauss Syndrome, ▪ Cryoglobulinemia, ▪ Giant Cell Arteritis, ▪ Leukocytoclastic Vasculitis,	**6**	**2**	**2**	**10**	**5%**

▪ Microscopic Polyangiitis, ▪ Polyarteritis Nodosa. ▪ Polychondritis, ▪ Polymyalgia Rheumatica, ▪ Serum Sickness, ▪ Takayasu Arteritis, ▪ Wegener Granulomatosis.					
13) Heritable collagen disorders ▪ Marfan syndrome, ▪ Ehlar Danlos syndrome, ▪ Osteogenesis imperfect syndrome, ▪ Benign hypermobility syndrome.	**2**	**1**	**1**	**4**	**2%**
14) Rheumatic manifestation of malignancy	**1**	**1**	**----**	**2**	**1%**
15) Rheumatic manifestation of blood disease	**1**	**1**	**----**	**2**	**1%**
16) Pediatric rheumatology ▪ Idiopathic juvenile arthritis, ▪ Childhood scleroderma, dermatomyositis and systemic lupus erythematosus.	**6**	**3**	**4**	**13**	**7%**

17) Invasive therapeutic technique ▪ Joint aspirations and injections, ▪ Local injections.	**2**	**1**	**3**	**6**	**3%**
18) Rheumatological investigations ▪ Synovial fluid analysis, ▪ Lab studies.	**2**	**-----**	**3**	**5**	**3%**
19). Imaging in rheumatological diseases ▪ Musculoskeletal plain radiology, CT, magnetic resonance imaging and ultrasound.	**2**	**----**	**3**	**5**	**3%**
20) Drugs used in rheumatic diseases ▪ Non steroidal anti-inflammatory drugs. ▪ Steroids. ▪ Disease modifying antirheumatic drugs, ▪ Biological treatment.	**8**	**4**	**2**	**14**	**8%**
Total	**90**	**30**	**60**	**180**	**100%**

4-Teaching and Learning Methods

Methods used:

1. **Modified Lectures**: Seminars, scientific meetings and conferences,
2. **Small group discussions,**
3. **Problem solving Cases,**
4. **Self learning:** Projects, case studies, clinical cases,

5. **Clinical and Practical classes.**

Teaching plan:

Lectures: Large group sessions in the lecture theatre at the department using data shows,

Tutorials: Division of students into small groups,

Clinical and Practical classes: At inpatients' wards and outpatient' clinics. Every student is expected to present one topic and 3 cases.

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	3 times/week	One hour each between 9 am to 10 am	3 hours
Clinical and Practical	2 times /week	Three hours each between 10 am to 1 pm	6 hours
Tutorial	One time/week	One hour between 1 pm to 2 pm	1 hour
Total			**10 hours**

5. Student Assessment Methods

5-A) Attendance Criteria: 75% is the minimum acceptable attendance.

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding

Oral examination	To assess knowledge& understanding, intellectual skills and general and transferable skills
Clinical and Practical examination	To assess practical and clinical skills
MCQs	To assess knowledge& understanding, intellectual skills and general and transferable skills

5- C) Time Schedule:

Final Exam	Week
- **Written,** - **Clinical & Practical,** - **Oral.**	**At week 72** (end of 2nd part)
Thesis	**At week 96.**

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks
▪ **Written,**	**135**	**46%**
▪ **MCQ**	**15**	**4%**
▪ **Clinical and Practical,**	**120**	**39%**
▪ **Oral.**	**30**	**11%**
- **Thesis**	**------**	**------**
Total	**300**	**100%**

Students will pass if they get at least 50% in the written exam and at least 60% in all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written, **b- Clinical,** **c- Practical,** **c- Oral**.	- Short assay questions, MCQs, - One long and one short rheumatology cases to present and discuss, - Five plain x-rays to write a report and discuss. - One session.
2- Log Book: completed and signed by the head of the department.	

6. List of References

6.1- Essential Books (Text Books):

- Current diagnosis and treatment of rheumatology.

-. Primer of Rheumatic Diseases by Klipple (2012).

6.2- Recommended Books:

- Arthritis and Allied Conditions by Hollander (2009).

- Manual of rheumatic disease and outpatient orthopedic disorders (2010).

6.3- Periodicals, Web sites, CD-ROMs … etc:

- **Periodicals**:
  - Annals of Rheumatic Diseases..
  - Arthritis and Rheumatism.
  - British Journal of Rheumatology.
- **Web Sites:**
  - www.medscape.com,

- www.emedicine.com,
- www.gigapedia.com.

7- Facilities required for teaching and learning:

- Lecture halls,
- Small group classes,
- Information technology / AV aids: computers and data shows, CD-ROMs.

مقرر الروماتيزم:

Course Professor:	Signature & date:
Head of department:	Signature & date:

Rehabilitation Course Specification

- **Course Title:** Rehabilitation, Musculoskeletal and Physical Medicine,
- **Code:** RHUM **607, 609, 610**
- **Department offering the course:** Rheumatology, Rehabilitation and Physical Medicine.
- **Academic year of program**: 2013-2014,
- **Department element of program**: Major,
- **Academic Level:** 2nd part.
- **Date of specifications approval:**
  - **Department Council:** 3/9/2013, No. (201).
  - Faculty Council: 15-9-2013 , No.(356).
  -

A) Basic Information:

- **Allocated marks: 400** marks,
- **Course duration:** 30 weeks of teaching,
- **Credit hours :** 8 hours/week = **240** total credit hours

Item	Hours / week	Total hours
1- Lectures	**2**	**60**
2- Small group teaching / tutorials	**1**	**30**
3- Clinical	**3**	**90**
4- Scientific meeting	**2**	**60**
Total	**8**	**240**

B- Professional Information:

1- Overall Aims of the Program

The overall goals of the course are to:

- ***Provide*** students with an appropriate background covering musculoskeletal disorders as regard causes, pathogenesis, diagnosis and management.
- ***Give*** students the ability to list differential diagnoses of musculoskeletal disorders.
- ***Allow*** students to have skill to design rehabilitation programs for musculoskeletal disorders (acute and chronic).
- ***Give*** students experience for problem solving and decision-making in atypical clinical situations.
- ***Provide*** a trend for evidence-based medicine practice to support up profession in Rheumatology, Rehabilitation and Physical Medicine.
- ***Support*** students' lifelong learning talent necessary for continuous professional development and research establishment.
- ***Give*** students professional ethical values essential to demonstrate appropriate attitude towards patients and colleagues.
- ***Increase*** students' communication skills necessary for proper patients' interrogation and evaluation.
- ***Provide*** an appropriate professional education necessary to manage and organize health problems within the community.

2- Intended Learning Outcomes (ILOs)

2.a. Knowledge and Understanding:

By the end of the course, students should be able to:

2.a.1. List current and emerging data on the pathogenesis and management of different musculoskeletal disorders,

2.a.2. Describe the morbidity and mortality of musculoskeletal disorders , an investigational plan for causes and effective modern physiotherapeutic approaches to recover disability,

2.a.3. Recognize legal and ethical principles for professional practice consistent with values of proper medical conduct,

2.a.4. Outline common physical emergencies and illustrate the clinical outcome in the intensive care unit,

2.a.5. Identify objectives for clinical trials in the field Rheumatology, Rehabilitation and Physical Medicine,

2.a.6. Recognize an improved patients' health outcome through the development of a humanized rehabilitation service in the community.

2.b. Intellectual Skills:

By the end of the course, students should be able to:

2.b.1. Analyze symptoms and signs of patients , differential diagnoses for the different musculoskeletal disorders,

2.b.2. Point-out an investigational plan for patients regarding disease presentations and interpret the results of used diagnostic procedures to solve professional problems,

2.b.3. Take part in designing researches for the pathogenesis, diagnosis and treatment of different musculoskeletal disorders,

2.b.4. Write scientific subjects of recent information related to Rheumatology, Rehabilitation and Physical Medicine,

2.b.5. Identify the indications and rationale of referring patients to other related specialties according to risks and severity,

2.b.6. Recognize indications, prescriptions of different orthoses and prostheses and estimate their cost benefits in rehabilitation programs,

2.b.7. Discuss advance in rehabilitation approaches and management of rheumatic diseases based on recent data, evidence-based medicine and professional vision for future developmental plans.

2.c. Practical and professional Skills

By the end of the course, students should be able to:

2.c.1. Demonstrate skills to perform intra-articular, soft tissue and botulinum injections,

2.c.2. Prescribe manipulation techniques and therapeutic exercises within the rehabilitation program,

2.c.3. Write reports of kinesiologic and electromyographic studies,

2.c.4. Interpret challenges in Rheumatology, Rehabilitation and Physical medicine,

2.c.5. Demonstrate better awareness of current practice and technological means for rehabilitation in emergency cases and critical situations of stroke, acute pain, brain injury, joint infections, spinal injury and sports injury,

2.c.6. Identify prospects for future developments within Rheumatology, Rehabilitation and Physical Medicine,

2.c.7. Contribute specific knowledge and skills of Rheumatology, Rehabilitation and Physical Medicine to other specialties to improve joint communication.

2.d- General and Transferable Skills

By the end of the course, students should be able to:

2.d.1. Communicate effectively with other health care professionals to discuss and exchange ideas and arguments,

2.d.2. Uses sources of biomedical information and communication technology to remain up- to-date with advances in knowledge and practice,

2.d.3. Retrieve scientific information clearly to others in written, electronic and oral forms to improve performance,

2.d.4. Determine personal learning needs required for continuous professional development,

2.d.5. Use the sources of biomedical information and communication technology to teach others and evaluate their clinical practice,

2.d.6. Work effectively with an interdisciplinary team within time-planned shared programs.

3- Course Contents

Subject	Lectures (hrs)	Small group (hrs)	Clinical & Practical (hrs)	Total (hrs)	% of total
1) Patient Evaluation & Diagnosis ▪ Diagnosis of disability. ▪ Neuromuscular functional evaluation.	**1**	**1**	**3**	**5**	**2%**
2) Musculoskeletal Diseases ▪ Acute trauma and post-care of fracture. ▪ Chronic trauma/overuse. ▪ Fibrositis/myofascial Pain. ▪ Burns. ▪ Back and spine disorders.	**16**	**4**	**10**	**30**	**13%**

▪ Strain/sprains. ▪ Tendonitis/bursitis. ▪ Regional pain syndromes. ▪ Other soft tissue disease.					
3) Diagnostic Procedures ▪ Cardiopulmonary assess/Stress test. ▪ Gait analysis. ▪ Urodynamics, ▪ Neuropsychological evaluations.	**13**	**2**	**5**	**20**	**8%**
4) Electrodiagnosis ▪ General Electrodiagnosis. ▪ Instrumentation. ▪ Nerve conduction. ▪ Electromyography. ▪ Somatosensory evoked potential. ▪ Neuromuscular transmission. ▪ H Reflex/F Wave. ▪ Special studies.	**8**	**1**	**9**	**18**	**8%**
5) Neuro-rehabilitation ○ Stroke ○ Spinal cord injury ○ Traumatic brain Injury ○ Neuropathies ▪ Mononeuropathies. ▪ Polyneuropathies. ▪ Entrapment Neuropathies.	**15**	**5**	**12**	**32**	**13%**

○ Neurologic disorders ▪ Multiple sclerosis. ▪ Parkinson's disease. ▪ Ataxias ▪ Motor neuron disease. ▪ Poliomyelitis. ▪ Guillain-Barré syndrome. ▪ Cerebral palsy. ▪ Spina bifida. ▪ Muscular dystrophies. ▪ Thoracic outlet syndrome ▪ Plexopathy. ▪ Radiculopathy.					
6) Orthotics and Prosthetics ▪ Upper limb orthoses. ▪ Upper limb prostheses. ▪ Lower limb orthoses. ▪ Lower limb prostheses. ▪ Spinal orthoses.	**19**	**6**	**10**	**35**	**15%**
7) Therapeutic Exercise and Manipulation	**5**	**2**	**3**	**10**	**4%**
8) Rehabilitation Problems ○ Physical Complications ▪ Spasticity. ▪ Contracture. ▪ Pressure Ulcer. ▪ Posture/Balance Disorders. ▪ Dysphagia/Aspiration.	**15**	**5**	**10**	**30**	**13%**

▪ Bed Rest/ Deconditioning. ▪ Paralysis/Weakness. ▪ Heterotopic Ossification. ▪ Amputation. ▪ Scoliosis. ○ Cognitive/Sensory Dysfunction ▪ Speech and Language Disorders.					
9) Pain ▪ Management of chronic pain.	**2**	**----**	**3**	**5**	**2%**
10) Pharmacologic intervention ▪ Analgesics. ▪ Anti-seizure. ▪ Skeletal muscle relaxants. ▪ Other medications.	**5**	**---**	**5**	**10**	**4%**
11) Procedural/ Interventional ▪ Nerve Blocks. ▪ Anesthetic Injections. ▪ Other Procedural/Interventional.	**5**	**1**	**4**	**10**	**4%**
12) Behavioral/ Psychological Modalities ▪ Relaxation Therapy, ▪ Biofeedback, ▪ Behavior Modification, ▪ Psychotherapy/	**3**	**1**	**6**	**10**	**4%**

Counseling, ▪ Education.					
13) Organ-System rehabilitation o Cardiovascular ▪ Ischemic Heart Disease, ▪ Peripheral Artery Disease, ▪ Venous Disease, ▪ Vascular Disorders, ▪ Lymphedema, ▪ Other Cardiovascular o Pulmonary Disease ▪ COPD. ▪ Pneumonia. ▪ Impaired Ventilation. o GU/GI Disorders ▪ Neurogenic Bladder. ▪ Neurogenic Bowel. ▪ Cancer.	**13**	**2**	**10**	**25**	**10%**
Total	**120**	**30**	**90**	**240**	**100%**

4-Teaching and Learning Methods

Methods used:

1- Modified Lectures, Seminars, scientific meetings and conferences.

2- Small group discussions,

3- Self learning: Projects, case studies, clinical trials,

4- Clinical and Practical classes.

Teaching plan:

Lectures: Large group sessions in the lecture theatre at the department using data shows.

Tutorials: Division of students into small groups.

Clinical and Practical classes: At inpatients wards and outpatient clinics. Every student is expected to present 2 topic and 2 cases.

Time plan:

Item	Time schedule	Teaching hours	Total hours
Lectures	4 times/week	One hour each between 9 am to 10 am	4 hours
Clinical and Practical	3 times /week	Three hours each between 10 am to 1 pm	9 hours
Tutorial	One time/ week	One hour between 1 pm to 2 pm	1 hour
Total			**14 hours**

5. Student Assessment Methods

5-A) Attendance Criteria: 75% is the minimum acceptable attendance.

5-B) Assessment Tools:

Tool	Purpose (ILOs)
Written examination	To assess knowledge & understanding, 2.a.1→ 2.a.6

Oral examination	To assess knowledge& understanding, intellectual skills and general & transferable skills, 2.a.1→ 2.a.6, 2.b.1→ 2.b.7, 2.d.1→ 2.d.6.
Clinical and Practical examination	To assess practical & clinical skill, 2.c.1→ 2.c.7.
MCQs	To assess knowledge & understanding, 2.a.1→ 2.a.6.

5- C) <u>Time Schedule</u>:

Final Exam	Week
- **Written,** - **MCQ,** - **Oral,** - **Clinical& Practical.**	**At week 72**(end of 2nd part)

5-D) Weighing System:

Examination	Marks allocated	% of Total Marks
▪ **Written,**	**185**	**46%**
▪ **MCQ**	**15**	**4%**
▪ **Clinical and Practical,**	**150**	**39%**
▪ **Oral.**	**50**	**11%**
- Thesis	**-----**	**-----**
Total	**400**	**100%**

Students will pass if they get at least 50% in the written exam and at least 60% in all the exams.

Formative Assessment:

Sample **exam** closely matching the final **exam** / 3 months and students know their marks after.

5-E) Examinations Description:

Examination	Description
a- Written, **b- Clinical,** **c- Practical,** **d- Oral.**	- Short assay questions + MCQs, - One long and one short neurology cases to present and discuss, - Five electromyogram traces to write a report and discuss. - Five orthotic/prosthetic devices to identify and discuss. - One session.
2- Log Book: completed and signed by the head of the department.	

6. List of References

6.1- Essential Books (Text Books):

- Practical manual of physical medicine and rehabilitation by Jackson C. Tan (2008).

- Krusen's textbook of Physical medicine& Rehabilitation (2010).

6.2- Recommended Books:

- Tidy's massage and therapeutic exercises by porter S.

- Rehabilitation Medicine by DeLisa.

6.3- Periodicals, Web sites, etc:

- **Periodicals** :
  - Archives of Physical Medicine and Rehabilitation Journal.

- Spine.
- Journal of the Egyptian society of rheumatology and Rehabilitation.

- **Web Sites:**
  - www.medscape.com,
  - www.emedicine.com, www.
  - www.gigapedia.com.

7- Facilities required for teaching and learning:

- Lecture halls,
- Small group classes,
- Electromyography and gait Laboratories,
- Information technology / AV aids: computers, data shows and CD-ROMs,
- Rehabilitation equipments and gym.

مقرر التأهيل:

Course Professor:	Signature & date:
Head of department:	Signature & date:

We certify that all information required to deliver this program is contained in the above specification and will be implemented. All course specification for this program are in place.	
Program coordinators: Name: **Dr. Nashwa I. Hashaad,** **Dr. Rasha M. Fawzy.**	Signature & date:
Head of department: Name:	Signature & date:
Dean: Name:	Signature & date:
Executive director of the quality assurance unit: Name:	Signature & date: