



Course Specifications

for Master Degree in Rheumatology & Rehabilitation

Code: RHEUM 820

- Department offering the course :Rheumatology and Rehabilitation
- academic year :2015-2016
- Date of specification approval: July 2016

A) Basic Information:

- Allocated marks: _____ marks(12 credit points)
- Course duration: _____ weeks of teaching
- Teaching hours: _____ hours/week = _____ total teaching hours

B) Professional Information:

1- Overall Aim of the Course:

- To provides advanced knowledge, intellectual and clinical skills needed to enable the candidates to competently diagnose and manage Rheumatology, Clinical immunology and Rehabilitation medicine problems.
- To apply national and international standards of patient care, using evidence based medicine competently in practice together with the ability to respond to the changing health needs of the Egyptian community

2- Intended Learning Outcomes (ILOs):

a. Knowledge and Understanding

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

1. Describe the anatomy, physiology and biology of the normal joint.
2. Be familiar with basic scientific knowledge related to Rheumatic diseases and evaluate the concept of autoimmune disease in the light of the normal functions of the immune system.
3. Identify and discuss common rheumatic diseases and immunological and medical problems causing disabilities.
4. Identification of different Pediatric and Adolescent Rheumatology and Clinical Immunology disorders and their management modalities.
5. Identification of different Rheumatological and Clinical Immunology disorders in the elderly and their management modalities.
6. Distinguish and describe the basic pathology of different rheumatological and immunological disorders.
7. Understand the psychological basis of rheumatological disorders and disabilities.
8. Know the causes and practical approaches to monoarthritis and polyarthritis.
9. Understand basic concepts of immunological laboratory tests and procedures related to inflammatory and non inflammatory rheumatological and clinical immunology problems.
10. Recognize the clinical pharmacology of different treatment modalities including indications, dosages, contraindications and precautions as well as to be aware of the recent advances of biologic therapies.
11. Describe different management modalities for common problems including rheumatic disorders, bone diseases and patients with disabilities.
12. Recognize the basic principles of interventional procedures related to rheumatological disorders.
13. Describe etiology, diagnosis and treatment of Rheumatoid Arthritis
14. Describe etiology, diagnosis and treatment of Spondyloarthropathies
15. Describe etiology, diagnosis & treatment of Systemic lupus erythematosus & related syndromes
16. Describe etiology, diagnosis and treatment of Vasculitic syndromes
17. Describe etiology, diagnosis and treatment of Scleroderma & Mixed connective tissue diseases
18. Describe etiology, diagnosis and treatment of Structure, function and disease of muscles
19. Describe etiology, diagnosis and treatment of Rheumatic diseases of childhood
20. Describe etiology, diagnosis and treatment of Crystal-associated synovitis
21. Describe etiology, diagnosis and treatment of Osteoarthritis, polychondritis & heritable disorders
22. Describe etiology, diagnosis and treatment of Arthritis related to infection
23. Describe etiology, diagnosis and treatment of Arthritis accompanying systemic disorders
24. Describe etiology, diagnosis and treatment of Disorders of bone and structural protein
25. Describe etiology, diagnosis and treatment of Tumors involving joints

26. Describe etiology, diagnosis and treatment of Reconstructive surgery for rheumatic disease

Module (2) Musculoskeletal Medicine and Regional Diseases:

1. Be familiar with basic scientific knowledge underpinning the human musculoskeletal system including the anatomy, physiology, biochemistry, pathology, pharmacology and biomechanics, regional diseases and describe pathological changes of the musculoskeletal and neurological systems and the regional diseases.
2. Describe etiology, diagnosis and treatment of musculoskeletal pain.
3. Measurement and evaluation of musculoskeletal function
4. Identify and discuss common musculoskeletal and regional diseases causing disabilities.
5. Distinguish the basic pathology of different musculoskeletal and regional disorders.
6. Understand the psychological basis of musculoskeletal and regional diseases and disabilities.
7. Understand basic concepts of laboratory and radiological investigations related to musculoskeletal and regional diseases.
8. State the indications, techniques and limitations of Electrodiagnosis.
9. Describe normal gait and be able to analyze and identify the causes and treatment of abnormal gait patterns.
10. Describe different management modalities for common problems including musculoskeletal and regional diseases
11. Recognize the basic principles of interventional procedures related to regional and musculoskeletal disorders.
12. Understand the etiological, clinical and therapeutic basis of sports medicine.

Module (3) Physical Medicine and Rehabilitation:

1. Understand speech, language and auditory disorders and know the Rehabilitation principles.
2. Describe the Rehabilitation of swallowing impairment.
3. Understand the psychological basis, assessment and management of patients requiring Rehabilitation or are disabled.
4. Recognize the basic principles for evaluation and management of occupational and vocational therapy.
5. Describe the basis, indications, contraindications, precautions and procedure of electrotherapy.
6. Describe the indications, procedures and types of therapeutic exercises
7. Describe the indications and different types of orthoses, wheel chairs, assistive devices, walking aids and foot wear modifications.
8. Recognize the Rehabilitation of geriatric patients and of immobilization and be aware of the Activities of Daily Living (ADL)

9. Describe the Rehabilitation of stroke, Cerebral palsy, spinal cord lesion patient and Spasticity
10. Understand the Rehabilitation of arthritis and allied conditions
11. Be aware of the Rehabilitation and After care of fracture
12. Identify the Rehabilitation of the bladder and bowel impairments
13. Describe the Rehabilitation of the cardiovascular, respiratory and vascular systems
14. Describe the causes, types and management of amputation, know the Rehabilitation of the amputee and describe the indications and types of prostheses
15. Recognize the Rehabilitation of problems of sexuality in physical disability
16. Know the Rehabilitation of cancer and burn patient

Professional Skills : (b, c, d, and e):

b. Practical and Clinical Skills

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

The clinical skills are integrated within the second phase of the residency-training program. The details of the clinical skills are shown in the second phase of residency training program, In general, resident should acquire the essential skills for practicing Rheumatology, Clinical Immunology and Rehabilitation that include:

- a. **Appropriate history taking & clinical examination and differential diagnosis** for rheumatological, clinical immunology and rehabilitation disorders.
- b. **Design an appropriate diagnostic plan for evaluation of** rheumatological, clinical immunology and rehabilitation disorders.
- c. **Interpretation of the results of different investigations** related to the different rheumatological, musculoskeletal, immunological and rehabilitation disorders.
- d. **Practical procedures:**
 - i. Joint aspiration, lavage and/or injection.
 - ii. Soft tissue and regional injection.
 - iii. Examination of synovial fluid by Polarized microscopy.
 - iv. Electromyography and nerve conduction studies.
 - v. Diagnostic musculoskeletal ultrasound examination.

c. Professional Attitude and Behavioral Skills

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

Set up the appropriate treatment plans for common and rare rheumatological and rehabilitation disorders taking into consideration the individual needs and cost.

d. Communication Skills

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

A. Communication skills with patients:

1. Demonstrate respect to all patients irrespective of their socio-cultural or religious status.
2. Conduct patient interview with patience, attentive listening and respect.
3. Awareness of the need to communicate with patients and their families, and to involve them fully in planning management
4. Adequately and clearly explaining to the patient and/or his/her relatives the nature of the illness, diagnostic and therapeutic plans, possible complications and outcomes.
5. Efficiently and clearly document patient records.
6. Appropriate handling during difficult situations such as conveying bad news or dealing with patients' anger.
7. Discuss the progression of the patient's condition, therapeutic outcomes and professional mistakes if any openly in a way that promotes patient trust and confidence.
8. Able to achieve optimal patient care and the same time appreciating the cost effectiveness to allow maximum benefit from available resources.

B. Communication skills with health care providers:

9. Willingness to work effectively and respect contribution in a team with other health care providers, and to behave honorably towards them and to acknowledge and respect their opinions.
10. Communicate effectively with other health care professionals to maximize patient benefit.
11. Seeking formal and informal consultations from colleagues.
12. Performing appropriate referral to other health care practitioners when necessary.

C. Continuing medical education:

13. Appreciate the importance of continuing medical education in upgrading his knowledge and professional skills.
14. Self assessing his knowledge and skills and acquiring feedbacks from colleagues and supervisors continuously.
15. Use different sources of biomedical information to remain in contact with the recent advances in Rheumatology and Rehabilitation practice.
16. Participate in research projects and help to develop research protocols.

D. Skills related to the health needs of the Egyptian community:

17. Identify the Egyptian community health needs and properly utilize the given tools to provide high quality and cost-effective patient care.
18. Understand and utilize appropriate health care quality concepts.

e. Intellectual Skills

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

- Module (1) Rheumatology & Clinical Immunology:

1. Comprehend the complex nature of Rheumatology and Clinical immunology diseases before giving the appropriate decision
2. Interpret and correlate different clinical manifestations and investigations of Rheumatology and clinical immunology including laboratory, radiological and biopsy findings.
3. Grading of patients activity according disease activity indexes
4. Recommend the appropriate management plan of Rheumatology and clinical immunology cases.
5. Present strategies to avoid disease flares and activity in Rheumatology patients.
6. Offer preventive measures for patients at high risk of complications.

Module (2) Musculoskeletal Medicine and Regional Diseases:

1. Select appropriate laboratory and radiological investigations for different Musculoskeletal Medicine and Regional disorders according to a goal-based approach.
2. Interpret the results of different investigations or interventions for Musculoskeletal Medicine and Regional disorders
3. Offer medical and interventional solutions for Musculoskeletal and Regional Diseases
4. Suggest treatment plans for Musculoskeletal Medicine and Regional disorders.

Module (3) Physical Medicine and Rehabilitation:

1. Tailor the Rehabilitation treatment plans according to patient's expectations, scientific and financial aspects.
2. Recommend Rehabilitation medicine solutions for patients with disability and involve the patients family in the strategy.
3. Offer proper Rehabilitation treatment plans and follow up for patients.
4. Implementation of Total quality management related to Rehabilitation plans.
5. Interpret the results of different Rehabilitation programs and follow up for patients with disabilities.

f. General and Transferable Skills

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

A. Communication skills with patients:

1. Demonstrate respect to all patients irrespective of their socio-cultural or religious status.
2. Conduct patient interview with patience, attentive listening and respect.
3. Awareness of the need to communicate with patients and their families, and to involve them fully in planning management
4. Adequately and clearly explaining to the patient and/or his/her relatives the nature of the illness, diagnostic and therapeutic plans, possible complications and outcomes.
5. Efficiently and clearly document patient records.
6. Appropriate handling during difficult situations such as conveying bad news or dealing with patients' anger.
7. Discuss the progression of the patient's condition, therapeutic outcomes and professional mistakes if any openly in a way that promotes patient trust and confidence.
8. Able to achieve optimal patient care and the same time appreciating the cost effectiveness to allow maximum benefit from available resources.

B. Communication skills with health care providers:

9. Willingness to work effectively and respect contribution in a team with other health care providers, and to behave honorably towards them and to acknowledge and respect their opinions.
10. Communicate effectively with other health care professionals to maximize patient benefit.
11. Seeking formal and informal consultations from colleagues.
12. Performing appropriate referral to other health care practitioners when necessary.

C. Continuing medical education:

13. Appreciate the importance of continuing medical education in upgrading his knowledge and professional skills.
14. Self assessing his knowledge and skills and acquiring feedbacks from colleagues and supervisors continuously.
15. Use different sources of biomedical information to remain in contact with the recent advances in Rheumatology and Rehabilitation practice.
16. Participate in research projects and help to develop research protocols.

D. Skills related to the health needs of the Egyptian community:

17. Identify the Egyptian community health needs and properly utilize the given tools to provide high quality and cost-effective patient care.
18. Understand and utilize appropriate health care quality concepts.

3- **Course contents:**

Subject	Lectures (hrs)	Tutorial / Small group discussion (hrs)	Practical (hrs)	Total (hrs)	% of Total
1-	xx	xx			
2-		xx	xx		
3-	xx		xx		
4-	xx	xx	xx		
5-			xx		
Etc					
Total					100

III-A) TOPICS:

A Lectures:

Students will receive presentations on the following subjects:

Module (1): Rheumatology & Clinical Immunology 21 topics

1. Biology of the normal joint
2. Immune and Inflammatory responses
3. Evaluation of the patient
4. Musculoskeletal pain and evaluation
5. Diagnostic tests and procedures
6. Special issues
7. Clinical pharmacology
8. Rheumatoid arthritis
9. Spondyloarthropathies
10. Systemic lupus erythematosus and related syndromes
11. Vasculitic syndromes
12. Scleroderma and Mixed connective tissue diseases
13. Structure, function and disease of muscles
14. Rheumatic diseases of childhood
15. Crystal-associated synovitis

16. Osteoarthritis, polychondritis and heritable disorders.
17. Arthritis related to infection
18. Arthritis accompanying systemic disorders
19. Disorders of bone and structural protein
20. Tumors involving joints
21. Reconstructive surgery for rheumatic disease

Module (2): Musculoskeletal Medicine and Regional diseases 10 topics:

1. Musculoskeletal pain etiology, diagnosis and treatment.
2. Measurement and evaluation of musculoskeletal function
3. Musculoskeletal and regional diseases; causes and pathology.
4. Psychological basis of musculoskeletal and regional diseases.
5. Laboratory and radiological investigations related to musculoskeletal and regional diseases.
6. Electrodiagnosis: indications, techniques and limitations.
7. Normal gait and abnormal gait patterns.
8. Management modalities for musculoskeletal and regional diseases.
9. Basic principles of interventional procedures related to regional and musculoskeletal disorders
10. Sports medicine. etiological, clinical and therapeutic basis

Module (3): Physical Medicine and Rehabilitation 17 topics

1. Evaluation of the patient
2. Speech , language and auditory disorders, Rehabilitation of swallowing impairment
3. Psychological assessment and management
4. Occupational & Vocational therapy (evaluation & management)
5. Electrotherapy
6. Therapeutic exercises
7. Wheel chair and assistive devices
8. Rehabilitation of geriatric patients, Immobilization and ADL
9. Orthosis (upper limb, spinal, lower limb), foot wear modifications
10. Rehabilitation of stroke, CP and spinal cord lesion patient & Spasticity
11. Rehabilitation of arthritis and allied conditions

12. After care of fracture
13. Rehabilitation of the bladder and bowel impairments
14. Rehabilitation of the cardiovascular, respiratory and vascular systems
15. Amputee and Prosthesis (upper limb and lower limb)
16. Rehabilitation of problems of sexuality in physical disability
17. Rehabilitation of cancer and burn patient

III-B) Tutorial / Small Group Discussions

- 1) **1-Appropriate History taking.**

- 2) **Musculoskeletal examination.** The trainee should be able to identify:
 - i. Shoulder pathology:
 - a. Rotator cuff lesions.
 - b. Glenohumeral/capsular pathology.
 - c. Muscle wasting, proximal myopathy (deltoid).
 - d. S/C joint pathology – synovitis.
 - e. A/C joint pathology – synovitis.
 - f. Shoulder pain due to pain referred from viscera or neck.

 - ii. Elbow pathology:
 - a. Olecranon bursitis.
 - b. Elbow joint pathology.
 - c. Radio-ulnar joint pathology.
 - d. Medial or lateral epicondylitis.
 - e. Ulnar nerve entrapment.

 - iii. Hand & wrist pathology:
 - a. Radiocarpal joint pathology.
 - b. Distal radio-ulnar joint pathology.
 - c. MCP or IP joint pathology.
 - d. Hand deformities.
 - e. Muscle wasting.
 - f. Flexor or extensor tenosynovitis or tendon nodules.
 - g. Rupture or attenuation of flexor or extensor tendons of fingers or thumb.
 - h. De Quervain's tenovaginitis.
 - i. Carpal tunnel syndrome.

 - iv. Hip/pelvic pathology:
 - a. trochanteric, iliopsoas, gluteal bursitis.
 - b. Hip joint pathology including dysplasia.
 - c. Real & apparent leg length inequality.
 - d. SI joint pathology.
 - e. Muscle wasting, proximal myopathy, Trendelenberg sign.
 - f. Deformities of the hip, Thomas' test.

- g. Pathology of symphysis pubis.
 - h. Hip pain due to pain referred from lumbar region.
 - i. Lesions of tendons and entheses.
- v. Knee pathology:
- a. Knee joint pathology, including internal derangements.
 - b. Deformities.
 - c. Muscle wasting, myopathy.
 - d. Prepatellar, anserine bursitis.
 - e. Popliteal cyst.
 - f. Damage to collateral ligaments.
 - g. Knee pain due to pain referred from hip or lumbar spine.
 - h. Lesions of tendons and entheses.
 - i. Osgood-Schlatter's disease.
 - j. Adolescent anterior knee pain/Patello-femoral syndrome.
- vi. Ankle & foot pathology:
- a. Ankle (tibiotalar) pathology.
 - b. Subtalar/midtarsal joint pathology.
 - c. MTP & IP joint pathology.
 - d. Lesions of the Achilles tendon, enthesis and retrocalcaneal bursa.
 - e. Deformities of the ankle and foot.
 - f. Foot pain due to pain referred from lumbar spine.
 - g. Plantar fasciitis.
 - h. Tenosynovitis of tibialis post and peroneal tendons.
 - i. Rupture of tibialis posterior or Achilles tendon.
 - j. Lesions of bone (e.g. stress fracture).
- vii. Spinal pathology:
- a. Cervical, thoracic, and lumbar spine pathology.
 - b. Spinal nerve root entrapment syndromes.
 - c. Spinal deformities including scoliosis and kyphosis.
- viii. Extra-articular pathology:
- a. Raynauds phenomenon.
 - b. Vasculitic skin lesions.
 - c. Rheumatoid nodules.
 - d. Rash – psoriasis, pustular psoriasis, onycholysis, balanitis, lupus rashes, erythema nodosum,
 - e. Calcinosis.
 - f. Nail lesions – pitting, onycholysis, splinter haemorrhages, nailfold infarcts
 - g. Scleritis, episcleritis, conjunctivitis, iritis
 - h. Sclerodactyly.
 - i. Tophi.
 - j. Other medical complications of rheumatic disease affecting internal organs.

3) **The differential diagnosis of:** monoarthropathy, oligoarthropathy, polyarthropathy, axial arthropathy, muscle weakness, regional limb pain,

spinal musculoskeletal pain disorders, unexplained musculoskeletal pain and rheumatological emergencies.

4) **Trainee should be able to manage the following rheumatologic & immunologic cases:**

- a. Musculoskeletal pain problems and soft tissue rheumatism including:
 - i. Neck pain.
 - ii. Spinal pain.
 - iii. Intervertebral disc disorders.
 - iv. Spinal canal or foraminal stenosis & related syndromes.
 - v. "Whiplash" injury.
 - vi. Limb pain syndromes, e.g.:
 - 1. Rotator cuff disease, enthesopathies including epicondylitis, plantar fasciitis, bursitis and non-specific limb pain
 - 2. Complex regional pain syndromes - algodystrophy
 - vii. Chest wall pain syndromes.
 - viii. Fibromyalgia and related somatoform disorders.
 - ix. Benign joint hypermobility.
 - x. Pain problems specific to childhood, e.g. Osgood-Schlatter's disease, Perthe's disease and Nocturnal limb pain.
 - xi. Occupational and sports related problems.

- b. Osteoarthritis and related conditions including:
 - i. Osteoarthritis of large joints.
 - ii. Generalized osteoarthritis.
 - iii. Diffuse idiopathic skeletal hyperostosis.
 - iv. Neuropathic arthritis.

- c. Crystal associated arthropathies including:
 - i. Gout.
 - ii. Pseudogout.
 - iii. Apatite deposition disease.
 - iv. Oxalate metabolism disorders.

- d. Rheumatoid arthritis including:
 - i. Articular manifestations.
 - ii. Systemic manifestations: including respiratory, ocular, neurological, haematological, and dermatological manifestations.
 - iii. Complications: including cervical myelopathy, amyloid, septic arthritis.

- e. Spondyloarthropathies including:
 - i. Ankylosing spondylitis.
 - ii. Psoriatic arthritis.
 - iii. Enteropathic arthropathies.
 - iv. Reactive arthritis.
 - v. Whipple's disease.

- f. Autoimmune connective tissue diseases:

- i. Systemic lupus erythematosus.
- ii. Antiphospholipid syndrome.
- iii. Systemic sclerosis.
- iv. Sjögren's syndrome.
- v. Dermatomyositis/polymyositis.
- vi. Overlap syndromes.
- vii. Mixed connective tissue disease.
- viii. Relapsing polychondritis.
- ix. Vasculitides: including:
 - 1. Giant cell arteritis and polymyalgia rheumatic.
 - 2. Wegener's granulomatosis.
 - 3. Polyarteritis nodosa and micropolyarteritis.
 - 4. Churg Strauss vasculitis.
 - 5. Behçet's disease.
 - 6. Takayasu's arteritis.
 - 7. Cutaneous vasculitis.
 - 8. Panniculitis.
 - 9. Henoch Schonlein purpura.
 - 10. Cryoglobulinaemia.

- g. Bone disorders including:
 - i. Osteoporosis.
 - ii. Rickets and osteomalacia.
 - iii. Bone & joint dysplasias.
 - iv. Renal bone disease.
 - v. Regional disorders: Paget's disease, hypertrophic pulmonary osteoarthropathy, osteonecrosis, Perthe's disease.
 - vi. osteochondritis dissecans, transient regional osteoporosis.

- h. Metabolic, endocrine and other disorders including:
 - i. Endocrine disorders affecting bone, joint or muscle (e.g. thyroid, pituitary, parathyroid disorders).
 - ii. Metabolic disorders affecting joints (e.g. alkaptonuria, haemochromatosis).
 - iii. Heritable collagen disorders.
 - iv. Haemoglobinopathies.
 - v. Haemophilia and other disorders of haemostasis.

- i. Infection and arthritis:
 - i. Septic arthritis.
 - ii. Osteomyelitis.
 - iii. Post-infectious rheumatological conditions, including rheumatic fever, post-meningococcal arthritis.
 - iv. Lyme disease.
 - v. Mycobacterial, fungal & parasitic arthropathies
 - vi. Viral arthritis.
 - vii. Human Immunodeficiency virus and Acquired immunodeficiency syndrome.
 - viii. Hepatitis C.

- j. Neoplastic disease including:
 - i. Paraneoplastic musculoskeletal syndromes.

- ii. Primary and secondary neoplastic conditions of connective tissue.
- iii. Tumours of bone.
- iv. Pigmented villonodular synovitis.

- k. Miscellaneous disorders including:
 - i. Sarcoidosis.
 - ii. Eosinophilic fasciitis.
 - iii. Familial Mediterranean Fever.
 - iv. Hypogammaglobulinaemia & arthritis.
 - v. Amyloidosis.
 - vi. Sweets syndrome (neutrophilic dermatoses).

- l. Juvenile Idiopathic Arthritis: in relation to young adult and adult patients.

- m. Rheumatological disorders in the elderly.

5) **Trainee should be able to evaluate and manage different types of disabilities and guide an efficient program for rehabilitation of the following disorders:**

- a. Stroke and brain injury rehabilitation.
- b. Spinal cord rehabilitation. Traumatic & non-traumatic spinal cord lesions include multiple sclerosis, transverse myelitis, tumors & post surgical degenerative spine disease
- c. Rehabilitation of prolonged bed rest complication.
- d. Bone and joint rehabilitation.
- e. Amputee rehabilitation.
- f. Upper and lower limb prosthesis.
- g. Spinal, upper and lower limb orthosis.
- h. Cardiac and pulmonary rehabilitation
- i. Pediatric rehabilitation. Residents gain clinical skills and knowledge in diagnosis and rehabilitation management of a variety of conditions to include spinal cord and brain injury, cerebral palsy, spina bifida, scoliosis, hip dysplasia, and numerous other neuromuscular and musculoskeletal diseases.
- j. Geriatric rehabilitation.
- k. Electrotherapy modalities.
- l. Occupational rehabilitation.

III-C) PRACTICAL CLASSES:

1. Joint aspiration, lavage and/or injection.
2. Soft tissue and regional injection.
3. Examination of synovial fluid by Polarized microscopy.
4. Electromyography and nerve conduction studies.
5. Diagnostic musculoskeletal ultrasound.

4- Teaching and learning methods:

METHODS USED:

1. Lectures
2. Small group discussions
3. Tutorials
4. Practical classes

Lectures: A typical series of lectures held three times per week each 1.5 hour and cover the theoretical topics in the field of rheumatology, clinical immunology and rehabilitation and including case studies.

Seminar: (including recent topics and controversial issues) held weekly, in basic and clinical science of rheumatology, clinical immunology and rehabilitation, and cover the broad content of the specialty. All residents attend these sessions regardless of their clinical assignments. Such seminars typically include rheumatology management plans, laboratory and radiologic investigations, rehabilitation management programs, orthosis, prothesis and physical equipments seminars.

Journal Club: held weekly. Highlighting and systematically reviewing the most recent issues published in different journals in the field of rheumatology, clinical immunology and rehabilitation. They are brought for discussion by residents and staff members. The first journal club in each academic year is meant to given an introduction on how to read journal articles critically. Journal club is held once a week.

Grand round: held monthly, and are presented by residents on important topics of current interest. Presentations are formal and comprehensive.

Inpatient's staff round: held weekly. Cases are presented by residents highlighting the clinical problems encountered and the management plans.

Annual Scientific meetings arranged by the department (annual meeting).

TEACHING PLAN:

***Lectures: Division of students into _____ groups
/week, Time from _____ to _____.***

Tutorials:

Practical classes

Time plan:

Item	Time schedule	Hours / week	Total hours
1- Lectures	times/week; one hour each		

	between to		
2- Small group teaching / tutorials	hours / ___ week		
3- Practical	hours / ___ week		
4- Others			
Total			

5- Students Assessment methods:

5-A) ATTENDANCE CRITERIA: Faculty bylaws

5-B) Assessment TOOLS:

Tool	Purpose (ILOs)
Written examination	To assess knowledge , intellectual skills,
Oral examination	To assess Knowledge , intellectual and clinical skills
Practical examination	To assess clinical , professional and transferrable skills

5-C) TIME SCHEDULE: Faculty bylaws

Exam	Week
1- First half of the academic year	
2- Mid-year exam	
3- Second half of the academic year	
4- Practical exam	
5- Final exam	

5-D) GRADING SYSTEM:

Examination	Marks allocated	% of Total Marks
1- Shock exams		
2- First half		
3- Mid-year		
4- Second half		
5- Final exam:		
a- Written		
b- Practical		
c- Oral		
6- Assignments & other activities		
Total		

- The minimum passing & Passing grades (Faculty bylaws).

FORMATIVE ASSESSMENT:

Student knows his marks after the Formative exams.

5-E) Examinations description:

Examination	Description
1- Shock exams	
2- First half	Objectively structured questions
3- Mid-year	
4- Second half	
5- Final exam:	
a- Written	e.g. select (MCQs) & Supply (Short essay) questions e.g. Do, identify
b- Practical	e.g. How many sessions
c- Oral	
6- Assignments & other activities	e.g. Assignments, projects, practical books etc
Total	

6- List of references:

Course notes: will be provided by staff members

Essential textbooks:

- Kelley's Textbook of Rheumatology: Firestein GS, Budd RC, Harris ED, McInnes IB, Ruddy S and Sargent JS (eds.), 8th edition, 2009
- Primer on the Rheumatic Diseases: Klippel JH, Stone JH, Crofford LJ and White PH (eds.) 13th edition, 2008
- Physical Medicine and Rehabilitation: Braddom RL (ed.), 3rd edition, 2007

Recommended books for further readings:

- Oxford Textbook of Rheumatology: Isenberg DA, Maddison PJ, Woo P, Glass D and Breedveld FC. (eds.), 3rd edition, 2004
- Physical Medicine and Rehabilitation: Principles and Practice. DeLisa JA, Gans BM and Walsh NE. (eds.), 4th edition, 2004

Periodicals: Selected articles from will be provided to students

Web sites:

a- Area of Rheumatology and clinical immunology:
European Board of Rheumatology and the American College of Rheumatology
High Impact Rheumatology Curriculum
(<http://www.rheumatology.org/educ/hir/ppt.asp>)

b- Area of Rehabilitation medicine:

The American Academy of Physical medicine and Rehabilitation

(<http://www.aapmr.org/about.htm>)

:

7- Facilities required for teaching and learning:

Facilities used for teaching this course include:

- Lecture halls:
- Small group classes
- Laboratory
- Information technology / AV aids
- Models etc

Course coordinator:

Head of Department:

Date: / /