Ministry of Higher Education and Scientific Research
Apparatus for Supervision and Scientific Evaluation

Warith Al-Anbiyaa University (AS)
College of Medicine

Academic Program Description Form for Institutes and Colleges 2026-2027

Course Syllabus

Academic Program Description Form

University Name:	Warith Al-Anbiyaa University
College/Institute:	College of Medicine — Warith Al-Anbiyaa University (AS)
Scientific Department:	College of Medicine
Academic or Professional Program Name:	PHASE II (Pre-clerkship) Integrated PBL Phase Unit three
Final Certificate Name:	Bachelor of Medicine and Surgery (M.B.Ch.B)
Study System:	Annual
Date of Preparing the Description:	12-09-2026
Date of Filling the Form:	12-09-2026

Signature:

Head of Department Name: Dr. Ahmad hamza Al Baghdadi

Date: 26/9/2026

Signature:

Scientific Assistant Name: Dr. Ali Abulrida Algourah

Date: 26/9/2026

Reviewed by

Quality Assurance and University Performance Division

Name of Director of Quality Assurance and University Performance Division:	Dr. Ayad Ali Sahib Al Mousawi
Date:	23/09/2026
Signature:	Ayad

Approved by the Dean

Course Description Form

1. Course Name:
UNIT III: Musculoskeletal
2. Course Code:
MEDU202
3. Semester / Year:
Academic Year 2026-2027
4. Date of Preparing this Description:
12-9-2026
5. Available Attendance Forms:
In-person attendance (Mandatory): Lectures, PBL, TBL, Practical Labs, Clinical Skill Labs, and Hospital-Based Learning (HBL).
6. Number of Study Hours (Total) / Number of Units (Total)
Total Study Hour: 216 Hours (Theory 117 Hours ,PBL 36 Hours, TBL 18 Hours, Practical Labs 24 Hours, Clinical Skill Lab 18 Hours, HBL 3 Hours) **Total Units** :13.4 Units (Theory Units: 11.4, Practical Units: 0.8, Clinical Skill Units: 1.
7. Name of Course Coordinator (list all names if more than one)
Name: *Asst Prof. Dr. Ahmed AL Baghdagi* **Email:** *ahmed.hamza@uowa.edu.iq*

8. Course Objectives
By the end of this course, students will be able to: 1- Describe the general principles, concepts, and language of neuroscience that provide a basis for neural control and neurology. 2- Demonstrate knowledge of excitable cells (neurons & muscle cells), signaling mechanisms, drug actions, and receptors. 3- Understand peripheral sensory systems, spinal motor/sensory pathways, and clinical neural reflexes. 4- Describe the organization of limbs and back, muscle groups acting on joints, and normal range of motion.

5- Identify surface markings of major joints, nerves, blood vessels, and correlate them with MSK imaging.

6- Describe molecular, biochemical, and cellular structures of MSK tissues (muscles, bones, cartilage, connective tissues) and their healing mechanisms.

7- Explain causes, risk factors, pathogenesis, clinical presentation, and management of common MSK and peripheral nerve disorders.

8- Outline clinical, laboratory, radiological, and pathologic manifestations of MSK diseases.

9- Appraise the scientific method in establishing disease causation and efficacy of therapies.

10-Perform basic clinical examination of the MSK system and peripheral sensory/motor functions.

11-Describe mechanisms of action, indications, and side effects of essential drugs (analgesics, steroids, local anesthetics, NSAIDs, DMARDs).

12-Demonstrate understanding of pain psychology, behavioral aspects, and socioeconomic impacts of MSK disorders.

9. Teaching and Learning Strategies

1- Student-Centered Interactive Learning: Problem-Based Learning (PBL) sessions using integrated clinical cases.

2- Team-Based Learning (TBL): Structured active learning including iRAT, tRAT, and 4Ss clinical application.

3-Didactic & Interactive Lectures: Multidisciplinary coverage (Anatomy, Physiology, Pathology, Pharmacology, Biochemistry, Microbiology, Immunology, Behavioral Science, Radiology, Medicine, Surgery).

4-Practical Laboratory Sessions: Hands-on anatomical dissection/models, pathology histopathology slides, and biochemistry investigations.

5-Clinical Simulation & Skill Lab Training: Focused history taking (SOCRATES framework) and physical examination of joint/nerve pathologies.

6-Hospital-Based Learning (HBL): Real-world patient exposure, bedside evaluation, and clinical reasoning application.

7-Self-Directed Learning (SDL): Pre-class preparation using LMS (Moodle) and digital video resources.

10. Course Structure

Week	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
WK1	**Theory:** 13h **PBL:** 4h **TBL:** 2h **Practical Lab:** 4h **Skill Lab:** 2h	• Acute inflammation, cell injury & adaptation. • Shoulder region anatomy & brachial plexus. • Eicosanoids, NSAIDs, Aspirin, Paracetamol. • Shoulder impingement & dislocation. • SOCRATES history taking & general MSK exam.	Week 1: Painful Shoulder (Pathology, Anatomy, Pharmacology, Medicine, Surgery)	Lectures, PBL (Case 1), TBL, Anatomy & Pathology Labs, Skill Lab	Formative iRAT/tRAT, Spot Checks, OSCE, End-of-Unit Exam
WK2	**Theory:** 13h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h	• Chronic & granulomatous inflammation, tissue repair/bone healing. • Compartments of arm, back muscles, bone structure. • Narcotic analgesics & Opioid pharmacology. • Sensory receptors, pain pathways, pain psychology. • Fractures classification & Shoulder	Week 2: Swelling in Left Arm (Pathology, Anatomy, Pharmacology, Physiology, Behavior, Surgery)	Lectures, PBL (Case 2), TBL, Anatomy Lab, Skill Lab	Formative iRAT/tRAT, Practical Assessment, Mid-term/End-of-Unit Exam
WK3	**Theory:** 12h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h	• Shingles / Peripheral nerve infections. • Cubital fossa, elbow joint, forearm compartments, dermatomes. • Pain mechanisms, referred pain, analgesia. • Herpes Zoster, Supracondylar fracture & complications. • Elbow joint & Ulnar nerve examination.	Week 3: Pain in the Arm (Microbiology, Anatomy, Physiology, Behavior, Medicine, Surgery)	Lectures, PBL (Case 3), TBL, Anatomy Lab, Skill Lab	Formative Quiz, iRAT/tRAT, Skill Exam, Written MCQs

Week	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
WK4	**Theory:** 10h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h	• Pathologic & immunologic changes in Rheumatoid Arthritis. • Wrist joint & palm of hand anatomy. • DMARDs & Immunosuppressant drugs. • Reflexes (stretch, withdrawal, spindle, alpha-gamma linkage). • Carpal Tunnel Syndrome & Hand physical exam.	Week 4: Aching in Wrist (Pathology, Anatomy, Pharmacology, Physiology, Immunology, Medicine, Surgery)	Lectures, PBL (Case 4), TBL, Anatomy Lab, Skill Lab	Formative iRAT/tRAT, OSCE station, Written Exam
WK5	**Theory:** 12h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h	• Vertebral column structure, spinal dermatomes/motor tracts. • Osteomyelitis & Septic arthritis microbiology. • Local anesthetics & muscle nerve conduction/E-C coupling. • Histology of muscles & muscle fiber types. • Sciatica, Cervical Spondylosis, Spine & Lower limb neuro exam.	Week 5: Low Back Pain (Microbiology, Anatomy, Pharmacology, Physiology, Histology, Surgery)	Lectures, PBL (Case 5), TBL, Anatomy Lab, Skill Lab	Formative iRAT/tRAT, Practical OSPE, End-of-Unit Exam
WK6	**Theory:** 13h **PBL:** 4h **TBL:** 2h **Practical Lab:** 4h **Skill Lab:** 2h	• Osteoporosis pathogenesis & metabolic bone disorders. • Hip joint, upper femur blood supply, gluteal region. • Calcium homeostasis, Vit D3, PTH, bone remodeling. • Osteoporosis treatment & Complicated open fractures. • Hip joint examination & Lab diagnostic tests.	Week 6: Soft Bone (Pathology, Anatomy, Pharmacology, Physiology, Biochemistry, Medicine, Surgery)	Lectures, PBL (Case 6), TBL, Anatomy & Biochem Labs, Skill Lab	Formative Quiz, iRAT/tRAT, Lab Practical Exam, OSCE

Week	Hours	Required Learning Outcomes	Unit or Topic Name	Learning Method	Assessment Method
WK7	**Theory:** 11h **PBL:** 4h **TBL:** 2h **Practical Lab:** 4h **Skill Lab:** 2h	• Bone neoplasms (benign/malignant), molecular bases & staging. • Thigh compartments & popliteal fossa anatomy. • Anti-cancer pharmacology & Hypochondriasis. • Bone tumors presentation & Hip/Groin physical exam.	Week 7: Swelling in the Leg (Pathology, Anatomy, Pharmacology, Behavior, Surgery)	Lectures, PBL (Case 7), TBL, Anatomy & Pathology Labs, Skill Lab	Formative iRAT/tRAT, Practical OSPE, Written Exam
WK8	**Theory:** 12h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h	• Osteoarthritis pathology & Cartilage micro-structure. • Knee joint & Leg compartments anatomy. • Corticosteroids (Glucocorticoids/Mineralocorticoids) pharmacology. • ACL lesion, Common Peroneal Nerve lesion. • Knee joint & Peroneal nerve examination.	Week 8: Painful Knee (Pathology, Anatomy, Pharmacology, Medicine, Surgery)	Lectures, PBL (Case 8), TBL, Anatomy Lab, Skill Lab	Formative iRAT/tRAT, Skill OSCE station, Written Exam
WK9	**Theory:** 11h **PBL:** 4h **TBL:** 2h **Practical Lab:** 2h **Skill Lab:** 2h **HBL:** 3h	• Biochemistry of Uric Acid & Gout. • Foot & Ankle anatomy, Normal & Abnormal Gait cycle. • Muscle power/grading & Genetic basis of Duchenne Muscular Dystrophy (DMD). • Psychological & social impact of disability. • MSK Radiology, Gait examination, Bedside HBL evaluation.	Week 9: I Wish to Run (Biochemistry, Anatomy, Physiology, Genetics, Behavior, Radiology, Medicine)	Lectures, PBL (Case 9), TBL, Anatomy Lab, Skill Lab, HBL (3 Hours Hospital)	Continuous Assessment, Final OSCE, Final Written MCQs/SAQs

11. Course Evaluation

• Continuous **Formative Assessment:**

- TBL Readiness Assurance Tests (iRAT & tRAT)
- PBL Participation & Case Presentations
- Practical Lab & Skill Lab Checklists

• Summative **Assessment:**

- **Final-Unit / Continuous Written Examinations (MCQs / EMQs / SAQs):** Testing integrated theoretical knowledge.
- **OSPE (Objective Structured Practical Examination):** Identification and assessment of laboratory specimens (Anatomy, Pathology, Biochemistry).
- **OSCE (Objective Structured Clinical Examination):** Practical assessment of MSK history taking, joint examination, and clinical reasoning in Skill Labs.
- **HBL Portfolio / Clinical Assessment:** Evaluation of bedside skills, communication, and professionalism.

12. Learning and Teaching Resources

Required Textbooks (Curriculum, if any)	• *Gray's Anatomy for Students / Grant's Atlas of Anatomy* • *Guyton and Hall Textbook of Medical Physiology* • *Robbins & Cotran Pathologic Basis of Disease* • *Lippincott Illustrated Reviews: Pharmacology* • *Harper's Illustrated Biochemistry* • *Davidson's Principles and Practice of Medicine / Kumar & Clark's Clinical Medicine* • *Apley & Solomon's System of Orthopaedics and Trauma*
Main References (Sources)	• *Macleod's Clinical Examination* • *Harrison's Principles of Internal Medicine*
Recommended Supporting Books and References (scientific journals, reports, etc.)	• AMEE Guides in Medical Education (Integrated & Active Learning) • Journal of Bone and Joint Surgery (JBJS) • Annals of the Rheumatic Diseases

Electronic References, Websites	• Learning Management System: Warith Moodle Platform (for pre-class videos & lectures) • PubMed / ScienceDirect • Orthobullets (for integrated orthopedics learning)