



**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: Neuroscience Unit

Final Certificate Name: Bachelor of Medicine and Surgery (M.B.Ch.B)

Study System: Annual

Date of Preparing the Description: 20th September 2026

Date of Filling the Form: 20th September 2026

Signature:

Head of Department Name: Dr Muthana A. Abdulla

Date: 20-09-2026

Signature:

Scientific Assistant Name: Dr. Ali Abdulrida Algorah

Date: 26-09-2026

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:

26-09-2026

Signature:

Approved by the Dean

الاستاذ الدكتور
د. علي عبد الله
عبد الله
رئيس
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Course Description Form

1. Course Name
Neuroscience Unit
2. Course Code
Modul 303
3. Semester / Year
Second semester
4. Date of Preparing this Description
31/01/2027
5. Available Attendance Forms
Actual attendance
6. Number of Study Hours (Total) / Number of Units (Total)
153 hours – Theory and 40 hour – Practical / Number of units: To be confirmed
7. Name of Course Coordinator (list all names if more than one)
Name: Dr Muthana A. Abdulla Email: muthana.abd@uowa.edu.iq

8. Course Objectives
Course Objectives: By the end of this course, third-stage medical students will acquire integrated basic and clinical knowledge of the Neuroscience II Unit, Week 1, with emphasis on head injury, cranial cavity anatomy, meninges, brain trauma, intracranial hemorrhage, Glasgow Coma Scale assessment, CT interpretation, seizure prophylaxis, intracranial pressure control, rehabilitation, and post-concussive consequences. The unit integrates anatomy, physiology, pathology, community medicine, behavioral sciences, clinical resources, radiology, practical laboratories, and problem-based learning through Week 1 cases involving traumatic head injury,

subdural and epidural hematoma, neurological deterioration, surgical decision-making, and recovery after brain trauma.

9. Teaching and Learning Strategies

Strategy:

The teaching strategy focuses on linking the basic medical sciences of the nervous system with clinical reasoning in traumatic brain injury. Students will learn through theoretical lectures, PBL triggers, practical anatomy and radiology sessions, clinical skills activities, case discussion, and self-learning. The program encourages students to connect skull and meningeal anatomy, cerebral cortex function, vascular injury, intracranial bleeding, GCS deterioration, emergency management, neurosurgical intervention, post-concussive syndrome, and rehabilitation outcomes.

10. Course Structure

Week	Hours	Required Learning Outcomes	Name of Unit / Topic	Learning Method	Evaluation Method
Week 1	2 hr	Identify the major bones forming the cranial cavity, describe the major cranial sutures, explain the anterior, middle and posterior cranial fossae, and identify cranial foramina and the nerves passing through them.	Anatomy of the Skull and Osteology of the Cranial Cavity	Theoretical lecture, anatomy demonstration, practical anatomy session, self-learning.	Short-answer questions, practical identification, oral discussion, PBL participation.
Week 1	2 hr	Name the major parts of the central nervous system, describe the meninges, distinguish white matter from grey matter, identify brain features in coronal and axial sections, and describe the lobes, base of the brain, interpeduncular fossa and cranial nerve attachments.	Overview of the Central Nervous System	Lecture, labelled diagrams, small-group discussion, practical neuroanatomy activity.	Written quiz, diagram labelling, student presentation of learning issues.
Week 1	2 hr	Explain overall motor control by the cerebral cortex, identify the types and functions of motor cerebral areas, and relate cortical motor control to movement, speech and neurological deficit after brain injury.	Physiology: Motor Control and Cerebral Cortex Function	Interactive lecture, clinical correlation, case-based discussion.	Formative questions, participation, application to PBL case findings.
Week 1	1–2 hr	Describe neuronal and glial responses to injury, classify types of CNS trauma, explain skull fracture, parenchymal injury, traumatic vascular injury, epidural haematoma, subdural haematoma, sequelae of brain trauma and spinal cord trauma.	Pathology of Traumatic Brain Injury	Lecture, pathology discussion, PBL integration, CT image correlation.	MCQs, short-answer questions, case interpretation, PBL tutor feedback.
Week 1	1 hr	Determine the percentage and causes of head injury in the community, recognise risk factors for road traffic and sports-related head injury, and discuss preventive and public health aspects.	Community Medicine: Epidemiology and Causes of Head Injury	Lecture, local data discussion, group activity.	Group discussion, brief report, participation assessment.
Week 1	1 hr	Discuss psychological and social consequences of head injury, including	Behavioral Sciences and	Seminar, case discussion, reflective	Reflective questions, seminar

		reactions to illness, lifestyle change, quality of life, mood changes, social support, anxiety, irritability and post-concussive syndrome.	Mental Health: Consequences of Head Injury	discussion, PBL trigger review.	participation, case-based assessment.
Week 1	1–2 hr	Apply clinical assessment of head injury using Glasgow Coma Scale, identify diagnostic tests, recognise complications, explain CT findings, and outline management, prognosis, seizure prophylaxis, intracranial pressure control and rehabilitation needs.	Clinical Resources: Diagnosis, GCS, Management and Prognosis	Clinical skills session, CT interpretation, emergency case discussion, PBL tutorial.	Clinical scenario assessment, GCS scoring exercise, CT interpretation task.
Week 1	Practical	Identify CT and MRI features of the brain and spinal cord, recognise normal and abnormal imaging appearances, and relate radiological findings to subdural or epidural bleeding, midline shift and neurological deterioration.	Practical Laboratory: Radiology, Anatomy and Clinical Skills	Radiology demonstration, anatomy lab, clinical skills lab, supervised practical activity.	Practical checklist, image interpretation, tutor observation and feedback.

11. Course Evaluation

Course evaluation can be completed through weekly TBL examinations, PBL participation, student presentation of learning issues, practical/laboratory assessment, interpretation of CT images and neurological findings, clinical skills performance, and regular student feedback on the scientific material and teaching process. Assessment should measure students' ability to integrate basic neuroscience with clinical decision-making in head injury, intracranial hemorrhage, emergency management, and rehabilitation.

12. Learning and Teaching Resources

Required Textbooks (Curriculum, if any)	Core neuroscience, neuroanatomy, physiology, pathology, radiology, neurosurgery, emergency medicine, rehabilitation medicine, behavioral sciences, and clinical skills reference relevant to skull anatomy, cranial cavity osteology, meninges, cerebral cortex function, traumatic brain injury, epidural and subdural hematoma, Glasgow Coma Scale, CT brain interpretation, intracranial pressure management, seizure prophylaxis, post-concussive syndrome, and rehabilitation after head trauma.
Main References (Sources)	
Recommended Supporting Books and References (scientific journals, reports, etc.)	Recommended supporting resources include anatomy atlases of the skull and brain, radiology resources for CT and MRI interpretation, clinical guidelines for traumatic brain injury, emergency management references, rehabilitation resources, behavioral science materials on psychological and social consequences of head injury, and PBL tutor/student guides for Neuroscience II Unit Week 1.

Electronic References, Websites	Electronic references and websites: to be completed according to approved institutional resources and current clinical guidelines.
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