

	Ministry of Higher Education and Scientific Research - Iraq University of Warith Al_Ambiyaa Engineering College Biomedical Engineering Department	
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Module Information					
معلومات المادة الدراسية					
Module Title	Neck and Nervous Anatomy			Module Delivery	
Module Type	Core			☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	BME-323				
ECTS Credits	6				
SWL (hr/sem)	125				
Module Level		3	Semester of Delivery		2
Administering Department		BME	College	ENG	
Module Leader	Natiq Aziz Omran		e-mail	Nataq.az@uowa.edu.iq	
Module Leader’s Acad. Title		lecturer	Module Leader’s Qualification		Ph.D.
Module Tutor			e-mail		
Peer Reviewer Name			e-mail		
Scientific Committee Approval Date		16/2/2026	Version Number	1.0	

Relation with other Modules			
العلاقة مع المواد الدراسية الأخرى			
Prerequisite module	None		Semester

Co-requisites module	None	Semester	
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Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Aims أهداف المادة الدراسية	1. To know the types of muscle tissues and distinguish their characteristics. 2. To understand nervous tissue histology 3. This course deals with the basic concept of nervous tissue. 4. This is the basic subject for all body tissues. 5. To develop skills dealing with stain. 6. To know the types of microscopes used in diagnosis.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Recognize all types of body tissues. 2. Summarize what is meant Muscles of Neck and Shoulder. 3. Learn about the function of cartilage in the body. 4. Discuss the most important tissues that cover the skeletal system 5. Discuss the characteristics Nerves of Neck and Shoulder Ulnar nerves 6. Explain what lines the circulatory system of tissues 7. Describe the importance of the tissues of the nervous system 8. Discuss the most important dyes used in diagnosis 9. Description of the immunohistochemistry technique 10. Electron microscopy and its importance in histological diagnosis were discussed

Indicative Contents المحتويات الإرشادية	Indicative content includes the following. Muscles of the Head and Face , Muscles of gluteal (SUPERFICIAL) region , Muscles of gluteal (DEEP) region , Muscles of thigh (HAMSTRING) region , Muscles of thigh (ANTERIOR) region , Muscles of thigh (ADDUCTOR) region [12 hrs] Genicular anastomosis , Veins of the l.l , Superficial veins :great saphenous vein , Venae comitantes , Perforating veins , Varicose veins , Deep vein thrombosis (DVT) [12 hrs] Muscle tissue- structure, contraction and innervation of skeletal muscle, cardiac and smooth muscles, nervous tissue- histogenesis, cells, synapses, nerve fibers, nerves, ganglia, membranes and vessels of the CNS, blood-brain-barrier, cytoarchitecture of the spinal cord, cerebellum and cerebrum. The heart, the conducting system, its blood supply. [12 hrs] Nerves of Neck and Shoulder Median & Ulnar nerves , Median Nerve in Arm , Median Nerve in Hand , Median Nerve Lesion . [20 hrs]
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Learning and Teaching Strategies

استراتيجيات التعلم والتعليم

Strategies	The main strategy that will be adopted in delivering this module is to encourage students' Muscles and nerve of Neck and Shoulder and laboratory slides, This will be achieved through classes, interactive tutorials and by considering type of simple experiments involving some sampling activities that are interesting to the students.
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Student Workload (SWL)

الحمل الدراسي للطالب محسوب لـ ٥١ اسبوعا

Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	78	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب اسبوعيا	5
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	47	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب اسبوعيا	4
Total SWL (h/sem) الحمل الدراسي الكلي للطالب خلال الفصل	125		

Module Evaluation

تقييم المادة الدراسية

		Time/Number	Weight (Marks)	Week Due	Relevant Learning Outcome
Formative assessment	Quizzes	2	10% (10)	5, 10	LO #1, 2, 10 and 11
	Assignments	2	10% (10)	2, 12	LO # 3, 4, 6 and 7
	Projects / Lab.	1	10% (10)	Continuous	All
	Report	1	10% (10)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hr	10% (10)	7	LO # 1-7
	Final Exam	2hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus) المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Nerve system, Nerve cells (neurons), Cell body, Dendrites, Axons.
Week 2	Glial cell (neuroglia), Astrocytes, Ependymal cell, Microglial cell, Oligodendrocytes, Schwann Cell, Satellite Cells.
Week 3	Nerve Impulses, Synaptic Communication, Common neurotransmitters and their actions, Myelination.
Week 4	Central Nervous System, Meninges, Dura Mater, Arachnoid, Pia Mater, Cerebral Lobes, Cerebrospinal Fluid, pituitary Glands.
Week 5	Muscles of Posterior Compartment of the leg (SUPERFICIAL) , Muscles of Posterior Compartment of the leg (DEEP) , Muscles of Anterior Compartment of the leg
Week 6	Muscles of Lateral Compartment of the leg , Muscles of Foot Posterior Compartment, Muscles of Foot Dorsal Aspect
Week 7	Mid-term Exam
Week 8	Vascular Anatomy Of The Neck and Shoulder , Arteries Of The Upper Limb , The Subclavian Artery, The Axillary Artery, Anastomosis, The Brachial Artery
Week 9	The Ulnar Artery, The Radial Artery, Anastomosis around Elbow Joint, Arteries of the palm
Week 01	Veins of the Upper Limb, Superficial Veins, Vein Catheterization , Median Cubital Vein
Week 11	Arteries and veins of the Neck and Shoulder , femoral artery , Branches, Profunda Femoris Artery, Arterial anastomosis in the ll, Cannulation of femoral artery, Popliteal artery
Week 12	Genicular anastomosis , Veins of the l.l , Superficial veins :great saphenous vein , Venae comitantes , Perforating veins , Varicose veins , Deep vein thrombosis (DVT)
Week 13	Nerves of Neck and Shoulder Median & Ulnar nerves , Median Nerve in Arm , Median Nerve in Hand , Median Nerve Lesion
Week 14	Median Nerve Lesion at Wrist, Carpal Tunnel Syndrome , Lower-limb nerves , Nerves in leg , Lumbar plexus
Week 15	Femoral nerve , Sciatic foramen: Greater and Lesser , Fibular (Peroneal) nerve , Tibial nerve , Fibular (Peroneal) nerve injury
Week 16	Preparatory week before the final Exam

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Clinical Anatomy of the Neck and Nervous, (9 th editions), by David Kachlík	Yes
Recommended Texts	Snell Clinical Anatomy by Regions (9th Edition)	yes
Websites	1. https://www.kenhub.com 2. https://teachmeanatomy.info 3. https://www.getbodysmart.com 4. https://www.anatomyarcade.com 5. https://practiceanatomy.com	

Grading Scheme

مخطط الدرجات

Group	Grade	التقدير	Marks (%)	Definition
Success Group (50 - 100)	A - Excellent	امتياز	90 - 100	Outstanding Performance
	B - Very Good	جيد جدا	80 - 89	Above average with some errors
	C - Good	جيد	70 - 79	Sound work with notable errors
	D - Satisfactory	متوسط	60 - 69	Fair but with major shortcomings
	E - Sufficient	مقبول	50 - 59	Work meets minimum criteria
Fail Group (0 - 49)	FX – Fail	راسب (قيد المعالجة)	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required

Note: Marks Decimal places above or below 0.5 will be rounded to the higher or lower full mark (for example a mark of 54.5 will be rounded to 55, whereas a mark of 54.4 will be rounded to 54. The University has a policy NOT to condone "near-pass fails" so the only adjustment to marks awarded by the original marker(s) will be the automatic rounding outlined above.

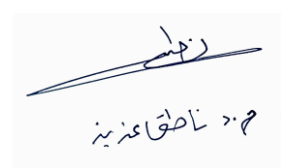


Head of the Department

Dr. Osama Abdulbari



أ.م.د. حسين هادي حسين
عميد كلية الهندسة



م.م. هادي هادي