



MODULE DESCRIPTION FORM

نموذج وصف المادة الدراسية



Module Information				
معلومات المادة الدراسية				
Module Title	Anatomy I		Module Delivery	
Module Type	Basic		☒ Theory ☒ Lecture ☒ Lab ☐ Tutorial ☐ Practical ☐ Seminar	
Module Code	MDER213			
ECTS Credits	5			
SWL (hr/sem)	125			
Module Level	2	Semester of Delivery		3
Administering Department	Type Dept. Code	College	Type College Code	
Module Leader	Dr. Basim Ali Kraidi		e-mail	Basim.Ali@alayen.edu.iq
Module Leader's Acad. Title	Lecturer		Module Leader's Qualification	Ph.D.
Module Tutor	Name (if available)		e-mail	E-mail
Peer Reviewer Name	Name		e-mail	E-mail
Scientific Committee Approval Date	4/12/2024		Version Number	1.0

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



Module Aims, Learning Outcomes and Indicative Contents

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية

Module Objectives أهداف المادة الدراسية	1. This course will provide the students with the basic knowledge of human anatomy in the context of macroscopy and microscopic structure, mechanics, and function. 2. The focus is on the healthy body, concerning diseases and aging. 3. It provides basic biological knowledge in human systems for bioengineering applications.
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	1. Appreciate the anatomy of the cell and its subcomponents and functions. 2. Able to identify different bones, and their function within the human body. 3. Make a distinction between joints; appreciate the function of muscles. 4. Have a basic knowledge of the anatomy of the shoulder girdle; the arm and elbow; the forearm and wrist; the hand; the back; the pelvis and hip; the thigh and knee; the foot; pulses and reflexes in the limbs; nerve injuries in the limbs; practical session upper limb and lower limb. 5. Understanding of Musculoskeletal Anatomy: Students should be able to identify and describe the bones, muscles, and joints of the trunk, including the spine, rib cage, and associated musculature. This knowledge is crucial for understanding how the trunk supports and protects vital organs. 6. Knowledge of Cardiovascular: Students should understand the anatomical structures of the heart, and major blood vessels (such as the aorta and vena cava), including their spatial relationships within the trunk. 7. Understanding of Anatomical Variations and Pathologies: Students should recognize common anatomical variations and pathologies that can affect the trunk, such as scoliosis, herniated discs, or thoracic aortic aneurysms, and understand how these might impact the design and function of biomedical devices.
Indicative Contents المحتويات الإرشادية	An Introduction to the Human Body (3h) • Terms of description • Movement • Basic anatomical structures • Imaging anatomy • Sectional anatomy Anatomy of the upper limbs (8h) • Bone • Muscles • Joints • Movements • Nerve injuries Anatomy of the lower limbs (8h) • Bone • Muscles • Joints

	• Movements • Nerve injuries The Thorax (3h) • Thoracic cage • Intercostal spaces & muscles • Respiration Pleural cavity (3h) • The pleura • The lungs The Mediastinum (3h) • Division & sub Division The Heart (3h) • Heart chambers • Great blood vessels • Blood circulation
--	---

Learning and Teaching Strategies استراتيجيات التعلم والتعليم	
Strategies	1. Integrative Lectures with Clinical and Engineering Context 2. 3D Visualization and Virtual Dissection Tools 3. Anatomical Lab Work with Emphasis on Engineering Applications 4. Assessments through regular quizzes, mid-term exams, practical exams, seminars, and reports.

Student Workload (SWL) الحمل الدراسي للطالب محسوب لـ ١٥ اسبوعا			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	79	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	46	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	4.1
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	1	5% (5)	6	LO #1-5
	Assignments	1	10% (10)	10	LO #1-16
	Projects / Lab.	1	15% (15)	10	1-9
	Report	1	10% (10)	7	LO #1-14
Summative assessment	Midterm Exam	3hr	10% (10)	10	LO #6-9
	Final Exam	3hr	50% (50)	16	All
Total assessment			100% (100 Marks)		

Delivery Plan (Weekly Syllabus)	
المنهاج الاسبوعي النظري	
	Material Covered
Week 1	Introduction to anatomy (Terms of description & movement, Basic anatomical structures, Imaging anatomy, sectional anatomy)
Week 2	The Upper & Lower Limbs (Osteology of shoulder region, joints of shoulder girdle, Scapular & shoulder muscles, axilla & brachial plexus)
Week 3	Arm & elbow joint
Week 4	The Cubital fossa & forearm
Week 5	Wrist & hand
Week 6	The gluteal region
Week 7	The hip joint & osteology of femur, the thigh
Week 8	Knee joint & popliteal fossa, the leg & its compartments, venous system of lower limb
Week 9	Ankle joint & arches of the foot, the foot, nerve injuries of lower limb
Week 10	Midterm Exam
Week 11	The Thorax (Thoracic cage organization - The sternum - The ribs & thoracic vertebrae)
Week 12	Intercostal space, Functional anatomy of respiration and diaphragm
Week 13	Pleural cavity, The Mediastinum (Division & sub Division)
Week 14	The Heart
Week 15	Seminars
Week 16	Preparatory week before the final Exam

Delivery Plan (Weekly Lab. Syllabus)

المنهاج الاسبوعي للمختبر

	Material Covered
Week 1	Lab 1: Introduction to anatomy (Terms of description & movement, Basic anatomical structures, Imaging anatomy, sectional anatomy)
Week 2	Lab 2: The Upper & Lower Limbs (Osteology of shoulder region, joints of shoulder girdle, Scapular & shoulder muscles, axilla & brachial plexus)
Week 3	Lab 3: Arm & elbow joint
Week 4	Lab 4: The Cubital fossa & forearm
Week 5	Lab 5: Wrist & hand
Week 6	Lab 6: The gluteal region
Week 7	Lab 7: The hip joint & osteology of femur, the thigh
Week 8	Lab 8: Knee joint & popliteal fossa, the leg & its compartments, venous system of lower limb
Week 9	Lab 9: Ankle joint & arches of the foot, the foot, nerve injuries of lower limb
Week 10	Lab 10: The Thorax (Thoracic cage organization. The sternum. The ribs & thoracic vertebrae)
Week 11	Lab 11: Intercostal space, Functional anatomy of respiration and diaphragm
Week 12	Lab 12: Pleural cavity, The Mediastinum (Division & sub Division)
Week 13	Lab 13: The Heart

Learning and Teaching Resources

مصادر التعلم والتدريس

	Text	Available in the Library?
Required Texts	Tortora G. J. Principles of Human Anatomy, tenth edition; 2005.	Yes
Recommended Texts	1. Seeley R. R.; Stephens T. D. & Tate P. (1998) Anatomy & Physiology, fourth edition. 2. Moore K. L. & Dalley A. f. (1999). Clinically Oriented Anatomy, fourth edition.	No
Websites	https://www.kenhub.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.