

<h3 style="text-align: center;">Module Information</h3> <p style="text-align: center;">معلومات المادة الدراسية</p>			
Module Title	PHYSIOLOGY		
Module Type	CORE		
Module Code	UOMU0101056		
ECTS Credits	5		
SWL (hr/sem)	125		
Module Level	3	Semester of Delivery	1
Administering Department	Type Dept. Code	College	Type College Code
Module Leader	Zainab Sattar Jaba	e-mail	zainab.sattar.jabbar@uomus.edu.iq
Module Leader's Acad. Title	lecturer	Module Leader's Qualification	Msc
Module Tutor	None	e-mail	None
Peer Reviewer Name		e-mail	
Review Committee Approval	1/09/2025	Version Number	1.0

<h3 style="text-align: center;">Relation With Other Modules</h3> <p style="text-align: center;">العلاقة مع المواد الدراسية الأخرى</p>			
Prerequisite module	Anatomy II BME 202	Semester	1
Co-requisites module		Semester	
Module Aims, Learning Outcomes and Indicative Contents			

أهداف المادة الدراسية ونتائج التعلم والمحتويات الإرشادية	
Module Aims أهداف المادة الدراسية	<p>1- Students would be able to explain basic structure and functions of cell</p> <p>2- Students would be able to explain interconnect of various systems</p> <p>3- This course deals with the basic concept of living cells.</p> <p>4- Students would be learnt about anatomy and physiology of various systems of human body</p> <p>5- To enable the student to develop an understanding of the structure, location and function of the systems of the human body.</p>
Module Learning Outcomes مخرجات التعلم للمادة الدراسية	<p>1- Define the main structures composing human body.</p> <p>2- Tells chemical structure of human body.</p> <p>3- Explains structure and functions of cell.</p> <p>4- Relates structure and functions of tissue.</p> <p>5- explain structure of skeletal system.</p> <p>6- Lists tissues of skeletal system.</p> <p>7- Defines structure and functions of joints.</p> <p>8- Explains properties of bone tissue.</p> <p>9- tell nervous system and sense organs.</p> <p>10- Categorizes nervous system.</p> <p>11- Recognizes cells of nervous system.</p> <p>12- Explains structure and functions of sense organs.</p> <p>13- Students would be able to explain interconnect of various systems</p> <p>14- Respiratory system</p> <p>15- Tells how urinary system work</p>

Indicative Contents المحتويات الإرشادية	<ol style="list-style-type: none"> 1. Label the relevant anatomical structures within each system. 2. Understand the inter-relationship between systems in the maintenance of homeostasis. 3. Summarize the functions of each system 4. Understand the Principles of Human Physiology 5- Structure and function of body systems 6-Physiology of Nervous system, Cardiovascular system, 7-7-Respiratory system, Urinary system and Muscle physiology. <p>8-Homeostasis</p> <p>Understand the 1) inter-relationship between systems in the maintenance of homeostasis. We will focus upon understanding the 1) interrelationship between the nervous system and all body systems 2) interrelationship between cardiovascular, renal and respiratory system and 3) endocrine system on all body systems</p>
Strategies	<p>Learning and Teaching Strategies</p> <p>استراتيجيات التعلم والتعليم</p> <p>The main strategy that will be adopted in delivering this module is to encourage students' participation in the class, while at the same time refining and expanding their critical thinking skills. This will be achieved through classes, interactive by considering type of simple experiments involving some sampling activities that are interesting to the students like identification and enumeration of blood cells, enumeration of hematological parameters and analysis of special sensory organs test.</p> <p>Explain the application of Physiological models</p>

	<p>Describe the methods and techniques for analysis and synthesis of Linear and dynamic system</p> <p>Develop differential equations to describe the compartmental physiological model</p> <p>Describe Nonlinear models of physiological systems</p> <p>Illustrate the Simulation of physiological systems</p>
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Student Workload (SWL)			
الحمل الدراسي للطالب			
Structured SWL (h/sem) الحمل الدراسي المنتظم للطالب خلال الفصل	93	Structured SWL (h/w) الحمل الدراسي المنتظم للطالب أسبوعيا	4
Unstructured SWL (h/sem) الحمل الدراسي غير المنتظم للطالب خلال الفصل	32	Unstructured SWL (h/w) الحمل الدراسي غير المنتظم للطالب أسبوعيا	2
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
	Lab.	2 hr.	10% (10)	Continuous	
	Report	0	10% (0)	13	LO # 5, 8 and 10
Summative assessment	Midterm Exam	2 hr.	10% (20)	7	LO # 1-7
	Final Exam	3hr.	50% (50)	16	All

Total assessment			100% (100 Marks)						Module Evaluation									
											تقييم المادة الدراسية							
Formative assessment		Quizzes	Formative assessment	Formative assessment		Formative assessment	Formative assessment		Time/Number		Weight (Marks)							
		Assignments									2	10% (10)						
		Lab.									2 hr.	10% (10)						
		Report									0	10% (0)						
		Midterm Exam									2 hr.	10% (20)						
Summative assessment	Final Exam	Total assessment	Summative assessment	Midterm	Final	Summative assessment	Summative assessment	Total assessment	Total assessment	Total assessment	100% (100 Marks)							
		Total assessment		Total assessment	Total assessment													
									Module Evaluation									
									تقييم المادة الدراسية									
									Time/Number		Weight (Marks)							
Formative assessment		Quizzes	Formative assessment	Formative assessment		Formative assessment	Formative assessment		Quizzes		10% (10)	10% (10)						
		Assignments							Assignments		10% (10)	10% (10)						
		Lab.							Lab.		10% (10)	10% (10)						
		Report							Report		0	0						
Summative assessment		Midterm Exam	Summative assessment	Midterm	Final	Summative assessment	Summative assessment	Total assessment	Midterm Exam		20% (20)	20% (20)						
		Final Exam		Final Exam					50% (50)		50% (50)							
Total assessment			Total assessment		Total assessment		Total assessment		Total assessment		100% (100 Marks)							
									Module Evaluation									
									تقييم المادة الدراسية									
									Time/Number		Weight (Marks)							
Formative assessment		Quizzes	Formative assessment	Formative assessment		Formative assessment	Formative assessment		Quizzes		10% (10)	10% (10)						
		Assignments							Assignments		10% (10)	10% (10)						
		Lab.							Lab.		10% (10)	10% (10)						
		Report							Report		0	0						
Summative assessment		Midterm Exam	Summative assessment	Midterm	Final	Summative assessment	Summative assessment	Total assessment	Midterm Exam		20% (20)	20% (20)						
		Final Exam		Final Exam					All 50% (50)		All 50%							
Total assessment			Total assessment		Total assessment		Total assessment		Total assessment		100% (100 Marks)							
									Module Evaluation									
									تقييم المادة الدراسية									
									Time/Number		Weight (Marks)							

	Total assessment	Total assessment	Total assessment		Total assessment	Total assessment				Mark 80% (100 Marks)
										Module Evaluation تقييم المادة الدراسية
			Time/Number	Weight	Time/Number	Time/Number	Weight	Time/Number	Time/Number	Weight (Marks)
Formative assessment	Q	Formative assessment	Formative assessment	Quizzes	Formative assessment	Formative assessment	Quizzes	1L3 10% (10) LO # 110% (50) 1011		
	A			Assign.			Assignments	1L2 10% (10) LO # 314% (50) 1012		
	L			Lab.			Lab.	1L0 10% (10) LO # 10% (10) 1010		
	R			Report			Report	1L1 10% (8) LO # 518% (50) 1010		
Summative assessment	M	Summative assessment	Summative assessment	Midterm	Summative assessment	Summative assessment	Midterm Exam	LO 20% (20) LO # 110% (20)		
	F			Final			Final Exam	All 50% (50) All 50% (50)		
Total assessment	Total assessment	Total assessment			Total assessment	Total assessment				Mark 80% (100 Marks)
										Module Evaluation تقييم المادة الدراسية
			Time/Number	Weight	Time/Number	Time/Number	Weight	Time/Number	Time/Number	Weight (Marks)
Formative assessment	Q	Formative assessment	Formative assessment	Quizzes	Formative assessment	Formative assessment	Quizzes	1L3 10% (10) LO # 110% (50) 1011		
	A			Assign.			Assignments	1L2 10% (10) LO # 314% (50) 1012		
	L			Lab.			Lab.	1L0 10% (10) LO # 10% (10) 1010		
	R			Report			Report	1L1 10% (8) LO # 518% (50) 1010		
Summative assessment	M	Summative assessment	Summative assessment	Midterm	Summative assessment	Summative assessment	Midterm Exam	LO 20% (20) LO # 110% (20)		
	F			Final			Final Exam	All 50% (50) All 50% (50)		
Total assessment	Total assessment	Total assessment			Total assessment	Total assessment				Mark 80% (100 Marks)
Module Evaluation تقييم المادة الدراسية										
	Time/Number	Weight (Marks)		Week D	Time/Number	Weight	Time/Number	Time/Number	Weight (Marks)	

Formative assessment	Quizzes	2	Formative assessment	Quizzes	Formative assessment	Quizzes	5, 10% (10)	LO # 1, 10% (50)	101
	Assignments	2		Assignments		Assignments	2, 10% (10)	LO # 3, 4% (20)	112
	Lab.	2 hr.		Lab.		Lab.	10% (10)	10% (10)	100
	Report	0		Report		Report	10% (0)	LO # 5, 18% (10)	108
Summative assessment	Midterm Exam	2 hr.	Summative assessment	Midterm Exam	Summative assessment	Midterm Exam	20% (20)	LO # 110% (20)	
	Final Exam	3hr.		Final Exam		Final Exam	50% (50)	All 50% (50)	
Total assessment			Total assessment	Total assessment	Total assessment		100%	(100 Marks)	

Delivery Plan (Weekly Syllabus) المنهج الاسبوعي النظري	
	Material Covered
Week 1	Structure of cell, structure and functions of sub organelles
Week 2	Cell Membrane –Transport of Across Cell Membrane — Action Potential
Week 3	Homeostasis
Week 4	Components of Blood and functions.- Blood Groups and importance – Structure of Heart – Conducting System of Heart
Week 5	Properties of Cardiac Muscle - Cardiac Cycle - Heart Beat – Types of Blood vessel
Week 6	Regulation of Heart rate and Blood pressure.
Week 7	Cells of Nervous systems – Types of Neuron and Synapses
Week 8	Mechanisms of Nerve impulse – Parts of Brain
Week 9	Spinal Cord – Tract and Pathways of Spines – Reflex Mechanism
Week 10	Classification of Nerves - Autonomic Nervous systems and its functions.
Week 11	Structure of Kidney and Nephron, Mechanisms of Urine formation
Week 12	Regulation of Blood pressure by Urinary System – Urinary reflex

Week 13	Types of Bone and function – Physiology of Bone formation – Division of Skeleton – Types of joints and function – Types of cartilage and function.
Week 14	Muscular: Parts of Muscle – Movements.
Week 15	Respiratory: Parts of Respiratory Systems – Types of respiration - Mechanisms of Breathing – Regulation of Respiration
Week 16	Final Exam

Learning and Teaching Resources مصادر التعلم والتدريس		
	Text	Available in the Library?
Required Texts	<p>1-David Shier, Jackie Butler, Ricki Lewis: 2017, Hole's Essentials of Human Anatomy & Physiology, 13, McGraw-Hill Education, McGraw-Hill Education, 978-125927736</p> <p>2-Seeley & Tate: 2011, Essential of Anatomy and Physiology, McGraw Hill, UK,</p> <p>3- Guyton & Hall, —Medical Physiology, 13th Edition, Elsevier Saunders, 2015</p> <p>4-Prabhjot Kaur. Text Book of Anatomy and Physiology. Lotus Publishers. 2014</p>	No

Recommended Texts	1-Michel C Khoo, —Physiological Control Systems - Analysis, simulation and estimation, Prentice Hall of India, 2001. 2- Eldra Pearl Solomon, —Introduction to Human Anatomy and Physiology, W.B. Saunders Company, 2015	No
Websites	http://libguides.madisoncollege.edu	

APPENDIX:

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	مقبول بقرار	(45-49)	More work required but credit awarded
	F – Fail	راسب	(0-44)	Considerable amount of work required
Note:				
NB 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.				

