

Course Description Form

1. Course Name:	
Physiology I (Theoretical+ Practical)	
2. Course Code:	
Phpht25-212	
3. Semester / Year:	
First semester/2025-2026	
4. Description Preparation Date:	
01/9/2025	
5. Available Attendance Forms:	
Students' signature on attendance Excel sheets	
6. Number of Credit Hours (Total) / Number of Units (Total)	
3 hours Theoretical + 2 hours Practical (75) /4 units	
7. Course administrator's name	
Theoretical	
Assist. Prof Dr. Fawaz A. Alassaf Email: Fawaz.Alassaf@uomosul.edu.iq Lecturer Dr. Mohammed Abdulkareem Younes Email: mohammed-78@uomosul.edu.iq Lecturer Ahmed Hikmat Email: ahmed.alhamdany@uomosul.edu.iq Assist. Lecturer Louay Alchalaby Email: looyalchalaby@uomosul.edu.iq	
8. Course Objectives	
Course Objectives	Enable students to acquire basic knowledge regarding the functions of the normal body, along with the ability to assess these functions and their relationship to normal and pathological conditions. Additionally, this course aids students in understanding the importance of molecular, biochemical, and cellular mechanisms in maintaining the internal environment stability of the body.
9. Teaching and Learning Strategies	
Strategy	<ul style="list-style-type: none"> Lectures and Interactive Presentations Case-Based Learning Interactive Workshops and Seminars Self-Directed Learning and Research Projects Assessment Strategies Practical laboratory demonstrations of physiological investigations and experiments in different subjects of physiology.

10. Course Structure					
Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
1	3+2	A1 student to learn part of C.N.S B2 student to differentiate the difference between the role of each parts & its effect on C.N.S.	Physiology of nerves: Nerve cells; excitation and conduction; Properties of mixed nerves; glia;	Theoretical lectures. Laboratory experiments	Paper-based exams

			neurotrophins; Nerve fiber types and functions		
2	3+2	A2 student understand the role of sympathetic & parasympathetic nervous system B1 student specify the cause of difference due to response.	central regulation of visceral function; the autonomic nervous system	Theoretical lectures. Laboratory demonstration.	Paper-based exams
3	3+2	A1 student to learn the stages of response at different parts of body. A2 student to explain the difference between the response speed at different body parts.	Synaptic transmission: Reflexes; cutaneous, deep and visceral sensations	Theoretical lectures. Laboratory demonstration.	Paper-based exams
4	3+2	A1 student to learn the function of motor system.	Higher function of the nervous system & motor system	Theoretical lectures. Laboratory demonstration.	Paper-based exams
5	3+2	A1 student to learn the role of C.N.S. in doing function as movement & sleep. C1 student able to give advise to patient suffering from sleep disturbance.	Alert behavior, sleep and electrical activity of the brain; control of posture and movement	Theoretical lectures. Laboratory experiments.	Paper-based exams
6	3+2	A1 student to learn the of renal system. A2 student to understand The factors affecting filtration & reabsorption.	Introduction; innervations of the renal vessels; renal clearance; renal blood flow; glomerular filtration rate (GFR) reabsorption of Na ⁺ , Cl ⁻ and glucos	Theoretical lectures. Laboratory demonstration.	Paper-based exams
7	3+2	A1 student to learn the balance between filtration & reabsorption. A2 student to explain the factors affecting glomerulotubular balance	Tubuloglomerular feedback and glomerulotubular balance	Theoretical lectures. Laboratory demonstration.	Paper-based exams
8	3+2	A1 student to learn the balance benefits between the acids & base. B1 student specify the indirect factors affecting balance between the acids & base.	Acid base balance	Theoretical lectures. Laboratory demonstration.	Paper-based exams
9	3+2	A1 student to learn the role of kidney in control acidity. B2 student to	Overcome of acidity and alkalinisation	Theoretical lectures.	Paper-based exams

		differentiate the difference between the role of each parts of body in control acidity.		Laboratory demonstration.	
Mid-term exam					
10	3+2	A1 student to learn part of C.V.S B1 student specify the role of each parts & its effect on C.V.S.	Cardiovascular physiology, excitation of cardiomyocytes, ECG, cardiac rhythm	Theoretical lectures. Laboratory demonstration.	Paper-based exams
11	3+2	A1 student to learn the work of C.V.S.. A2 student to explain The factors affecting C.V.S. function.	cardiovascular regulatory mechanisms: Local regulatory mechanisms; systemic regulation by the nervous system; systemic regulation by hormones;	Theoretical lectures. Laboratory demonstration.	Paper-based exams
12	3+2	A1 student to learn the role of heart in control pulse. B2 student to differentiate the difference of ECG paper & associated disease .	cardiac arrhythmias; electrographic findings in cardiac diseases; mechanical events of the cardiac cycle; cardiac output;	Theoretical lectures. Laboratory demonstration.	Paper-based exams
13	3+2	A1 student to learn part of respiratory system B1 student specify the role of each parts of respiratory system& its effect on lungs.	Respiration: Respiratory zones; Mechanics of respiration; air volumes; respiratory muscles; compliance of the lungs and chest wall; surfactants; differences in ventilation and blood flow in different parts of the lung	Theoretical lectures. Laboratory demonstration.	Paper-based exams
14	3+2	A1 student to learn process of respiration B1 student specify the role of gases in inspiration & expiration..	Dead space and uneven ventilation; Pulmonary circulation: Pressure, volume, and flow. Gas transport between the lungs and tissue;	Theoretical lectures. Laboratory demonstration.	Paper-based exams
15	3+2	A2 student understand the role of nervous system in controle respiratory system B1 student specify the cause of difference responses due to chemical & non-chemical factors.	Regulation of respiration: Neural control of breathing; Respiratory centers; Regulation of respiratory activity:	Theoretical lectures. Laboratory demonstration.	Paper-based exams

			Chemical factors; non chemical factors		
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11. Course Evaluation

- 20 M Theoretical assessment; (paper-based mid-term exam + quiz)
- 20 M practical assessment (attendance + quiz + + seminars)
- 60 M paper-based theoretical final exam

Total 100 M

12. Learning and Teaching Resources

Required textbooks	<ul style="list-style-type: none"> • Textbook of Medical Physiology by Guyton AC; latest edition
Main references (sources)	<ul style="list-style-type: none"> • Vander_s Human Physiology; latest edition • Ganong's review of medical physiology; latest edition
Electronic References, Websites	<ul style="list-style-type: none"> • PubMed (https://pubmed.ncbi.nlm.nih.gov/) • Physiology Online (https://www.physiologyonline.org/) • PhysiologyWeb (https://www.physiologyweb.com/)