



**Jordan University of Science and Technology**  
**Faculty of Medicine**  
**Doctor Of Medicine (Md) Department**

MED230B Human Physiology (Lab)

Second Semester 2023-2024

**Course Catalog**

1 Credit Hours. Course Description of Physiology Laboratory The physiology laboratory course is designed to introduce students to the functions of several human body systems. It emphasizes how each part within a body system works together to accomplish various physiological tasks seamlessly. The course covers critical components of physiology, including the regulation of organ function and the importance of maintaining homeostasis. Students will engage in laboratory experiments that complement the topics presented in the accompanying lecture course. These experiments focus on various physiological processes such as cell transport mechanisms, skeletal muscle function, nerve impulses, endocrine system dynamics, cardiovascular mechanics, respiratory system operations, digestion processes, renal function, acid-base balance, blood analysis, and serological testing. The laboratory component is delivered through downloadable labs and simulations that allow students to perform basic physiological measurements and analyze data quantitatively. This hands-on approach enables students to synthesize information and reason through new material while demonstrating an understanding of the overall structure and function of the human body.

**Teaching Method:** Blended

**Text Book**

<b>Title</b>	Handbook for physiology laboratory
<b>Author(s)</b>	Department of physiology
<b>Edition</b>	1st Edition
<b>Short Name</b>	Lab book
<b>Other Information</b>	

**Instructor**

<b>Name</b>	<b>Prof. Hameed Bataineh</b>
<b>Office Location</b>	M2 L0
<b>Office Hours</b>	
<b>Email</b>	hameedb@just.edu.jo

**Class Schedule & Room**

Section 1:

Lecture Time: Sun : 08:30 - 10:30

Room: LAB

Section 2:

Lecture Time: Sun : 10:30 - 12:30

Room: LAB

Section 3:

Lecture Time: Sun : 12:30 - 14:30

Room: LAB

Section 4:

Lecture Time: Sun : 14:30 - 16:30

Room: LAB

Section 5:

Lecture Time: Mon : 08:30 - 10:30

Room: LAB

Section 6:

Lecture Time: Mon : 10:30 - 12:30

Room: LAB

Section 7:

Lecture Time: Mon : 12:30 - 14:30

Room: LAB

Section 8:

Lecture Time: Mon : 14:30 - 16:30

Room: LAB

Section 9:

Lecture Time: Tue : 08:30 - 10:30

Room: LAB

Section 10:

Lecture Time: Tue : 10:30 - 12:30

Room: LAB

Section 11:

Lecture Time: Tue : 12:30 - 14:30

Room: LAB

Section 12:

Lecture Time: Tue : 14:30 - 16:30

Room: LAB

Section 13:

Lecture Time: Wed : 08:30 - 10:30

Room: LAB

Section 14:

Lecture Time: Wed : 10:30 - 12:30

Room: LAB

Section 15:

Lecture Time: Wed : 12:30 - 14:30

Room: LAB

Section 16:

Lecture Time: Wed : 14:30 - 16:30

Room: LAB

Section 17:

Lecture Time: Thu : 08:30 - 10:30

Room: LAB

Section 18:

Lecture Time: Thu : 10:30 - 12:30

Room: LAB

Section 19:

Lecture Time: Thu : 12:30 - 14:30

Room: LAB

Section 20:

Lecture Time: Thu : 14:30 - 16:30

Room: LAB

Section 21:

Lecture Time: Tue : 10:30 - 12:30

Room: LAB

**Tentative List of Topics Covered**

<b>Weeks</b>	<b>Topic</b>	<b>References</b>
Week 1	Introductio	From <b>Lab book</b>
Weeks 2, 3	Hematology tests	From <b>Lab book</b>
Weeks 3, 4	CVS	From <b>Lab book</b>
Week 5	First test	From <b>Lab book</b>
Weeks 6, 7	Respiratory function tests	From <b>Lab book</b>
Weeks 8, 9	Renal function tests	From <b>Lab book</b>
Week 10	Second test	From <b>Lab book</b>
Weeks 11, 12	Endocrine tests	From <b>Lab book</b>
Weeks 13, 14	CNS tests	From <b>Lab book</b>
Week 15	Revision	
Week 16	Final test	From <b>Lab book</b>

<b>Mapping of Course Outcomes to Program Outcomes</b>	<b>Course Outcome Weight (Out of 100%)</b>	<b>Assessment method</b>
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Students should be able to: Describe fundamental physiological processes. [1PLO1]	20%	Medterm Exam, Final exam
Explain homeostatic mechanisms in response to internal and external changes. [1PLO2]	20%	Medterm Exam, Final exam
Perform basic physiological measurements. [1PLO5]	20%	Medterm Exam, Final exam
Analyze physiological data quantitatively. [1PLO1, 1PLO5]	20%	Medterm Exam, Final exam
Understand functional mechanisms related to common diseases. [1PLO1]	20%	Medterm Exam, Final exam

Relationship to Program Student Outcomes (Out of 100%)													
PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12	PLO13	PLO14
50	20			30									

Evaluation	
Assessment Tool	Weight
Medterm Exam	50%
Final exam	50%

Policy
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<p>Course policy</p>	<p>Course Policy for Physiology Laboratories</p> <p>Participation and Dress Code Students are required to fully participate in human physiology experiments or assessments each week. Attention must be paid to the dress code and other instructions that could affect performance and maintenance of laboratory equipment.</p> <p>Equipment Handling</p> <p>Students must not take apart or unplug any physiology equipment without instructor assistance. Sensors should not be disconnected from iWorx hardware boxes without help. When removing sensors from a subject's body, students should carefully unsnap them from the electrode patch rather than tugging on wires.</p> <p>Waste Disposal</p> <p>Adhesive from electrode patches must be disposed of in specified waste bins only. Sharps, glass, materials contaminated with body fluids, and animal tissues have designated disposal bins; these items should not be placed in regular trash. Used electrodes should be folded over so the sticky side adheres to itself before being placed in small cans at each station.</p> <p>Lab Conduct</p> <p>Phone use is prohibited unless a specific application is needed for an experiment. Lab computers should not be used for accessing unauthorized web content. Before lab sessions, students must refrain from applying lotion or makeup on areas where electrodes will be placed.</p> <p>Safety Regulations Students must familiarize themselves with lab safety equipment locations such as emergency showers, eyewash stations, fire extinguishers, and first aid kits. Eating, drinking, handling contact lenses, storing food or beverages, or applying cosmetics in the laboratory is generally prohibited unless instructed otherwise. Personal water bottles should remain inside bags.</p> <p>Health Precautions Students who are pregnant or have medical conditions requiring special precautions during lab exercises must inform the instructor. Safety glasses are mandatory when using hazardous liquids, and disposable gloves are required when handling blood or body fluids.</p> <p>The course policies emphasize safety compliance, proper conduct during laboratory sessions, and adherence to health guidelines to create a safe learning environment for all participants.</p>
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