

**COURSE DESCRIPTIONS**

<b>Faculty</b>	Pharmacy				
<b>Department</b>	Pharmacy			<b>NQF level</b>	5
<b>Course Title</b>	physiology	<b>Code</b>	901358	<b>Prerequisite</b>	902123
<b>Credit Hours</b>	3	<b>Theory</b>	3	<b>Practical</b>	
<b>Course Leader</b>	Dr ali alsarhan	<b>email</b>	<a href="mailto:sarhan@jadara.edu.jo">sarhan@jadara.edu.jo</a>		
<b>Lecturers</b>	Dr ali alsarhan	<b>emails</b>	<a href="mailto:sarhan@jadara.edu.jo">sarhan@jadara.edu.jo</a>		
<b>Lecture time</b>	[ 11:30_13:00 ] Tuesday, Thursday	<b>Classroom</b>	D306		
<b>Semester</b>	Second semester	<b>Production</b>	2021	<b>Updated</b>	2021
<b>Awards</b>				<b>Attendance</b>	Fulltime

**Short Description**

The student studies and analyzes how complex body works composed of human body structures. Throughout this course we will highlight the communication mechanisms between body systems and the importance of these mechanisms throughout maintaining homeostasis and the proper functioning of other body systems. In addition, this course explores, describes and explains the prevalent concepts of body function as a mandatory to understand pharmacology and pathology taught in later years

**Course Objectives**

Human physiology aims to introduce the students to the Physiological concepts of homeostasis and control mechanisms and to study the functions of body systems- with emphasis on clinical relevance. The body systems dealt with in the autonomic nervous system, excitable tissues, the cardiovascular system, respiration, the gastrointestinal tract, renal physiology, and an introduction to metabolism and body temperature regulation, the endocrine and the nervous system.

**Learning Outcomes**

**A. Knowledge - Theoretical Understanding**

- a1. explain the body's fundamental physiological processes for maintaining homeostasis
- a2. explain the interaction between different organ systems and how organs and cells interact to maintain biological equilibria in the face of a variable and changing environment.

**B. Knowledge - Practical Application**

**B. Skills**

- b1. illustrate the mechanism of performing the functions of the several body systems and how it is controlled.

<b>C. Competence: Autonomy, Responsibility, and Context</b>
c1. decide the significance of information taken in physiology for subsequent pharmaceutical and biomedical courses.
<b>Teaching and Learning Methods</b>
<ul style="list-style-type: none"> <li>• Advanced Lecture (Presentations)</li> <li>• Discussion</li> <li>• Brainstorming</li> </ul> Using instructional technologies (video tutorial)
<b>Assessment Methods</b>
quizzes - midterm and final exam

Course Contents					
Week	Hours	CLOs	Topics	Teaching & Learning Methods	Assessment Methods
1.	3	a1, a2	<b>Introduction to Physiology</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
2.	3	a1, a2	<b>Interactions Between Cells and the Extracellular Environment</b>	Advanced Lecture (Presentations) Discussion Brainstorming	quizzes - midterm and final exam
3.	3	a1, a2, b1, c1	<b>The Nervous System (Neurons &amp; Synapses)</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
4.	3	a1, a2, b1, c1	<b>The Autonomic Nervous System.</b>	Advanced Lecture (Presentations) Discussion Brainstorming	quizzes - midterm and final exam
5.	3	a1, a2, b1, c1	<b>SENSORY PHYSIOLOGY</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
6.	3	a1, a2, b1, c1	<b>Mechanisms of Contraction and Neural Control</b>	Advanced Lecture (Presentations) Discussion Brainstorming	quizzes - midterm and final exam
7.	3	a1, a2, b1,	Midterm exam and discussion		

		c1			
8.	3	a1, a2,b1, c1	<b>Cardiac Physiology</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
9.	3	a1, a2,b1, c1	<b>Cardiac Physiology Cardiac Output, Blood flow, &amp; Blood Pressure:</b>	Advanced Lecture (Presentations)  Discussion  Brainstorming	quizzes - midterm and final exam
10.	3	a1, a2,b1, c1	<b>Respiratory System</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
11.	3	a1, a2,b1, c1	<b>Respiratory System</b>	Advanced Lecture (Presentations)  Discussion  Brainstorming	quizzes - midterm and final exam
12.	3	a1, a2,b1, c1	<b>DIGESTIVE SYSTEM</b>	Advanced Lecture (Presentations)	quizzes - midterm and final exam
13.	3	a1, a2,b1, c1	<b>PHYSIOLOGY OF THE KIDNEYS</b>	Advanced Lecture (Presentations)  Discussion  Brainstorming	quizzes - midterm and final exam
14.	3	a1, a2,b1, c1	<b>ENDOCRINE SYSTEM</b>	Advanced Lecture (Presentations)  Discussion  Brainstorming	quizzes - midterm and final exam
15.		-		Final exam	
16.		-		Final exam	

<b>Infrastructure</b>	
<b>Textbook</b>	<b>Human Physiology, 15th Edition, Stuart Ira Fox, McGraw Hill, 2019.</b>
<b>References</b>	<b>Essentials of Human Anatomy and Physiology, 14th edition, Marieb E.N. (2019) Pearson Education, Inc. Principles of Anatomy</b>
<b>Required reading</b>	

<b>Electronic materials</b>	<a href="http://highered.mheducation.com/sites/0073403628/information_center_view0/index.html">http://highered.mheducation.com/sites/0073403628/information_center_view0/index.html</a>
<b>Other</b>	Presentations

<b>Course Assessment Plan</b>					
<b>Assessment Method</b>	<b>Grade</b>	<b>CLOs</b>			
		<b>a1</b>	<b>a2</b>	<b>b1</b>	<b>c1</b>
<b>First (Midterm)</b>	30	4	6	10	10
<b>Second (if applicable)</b>	-	-	-	-	
<b>Final Exam</b>	50	8	12	15	15
<b>Coursework</b>					
<b>Coursework assessment methods</b>	Assignments				
	Case study				
	Discussion and interaction				
	Group work activities				
	Lab tests and assignments				
	Presentations				
	Quizzes	20	5	5	5
<b>Total</b>	100	17	23	30	30

<b>Plagiarism</b>
<p>Plagiarism is claiming that someone else's work is your own. The department has a strict policy regarding plagiarism and, if plagiarism is indeed discovered, this policy will be applied. Note that punishments apply also to anyone assisting another to commit plagiarism (for example by knowingly allowing someone to copy your code).</p> <p>Plagiarism is different from group work in which a number of individuals share ideas on how to carry out the coursework. You are strongly encouraged to work in small groups, and you will certainly not be penalized for doing so. This means that you may work together on the program. What is important is that you have a full understanding of all aspects of the completed program. In order to allow proper assessment that this is indeed the case, you must adhere strictly to the course work requirements as outlined above and detailed in the coursework problem description. These requirements are in place to encourage individual understanding, facilitate individual assessment, and deter plagiarism.</p>