Syllabus: Pathophysiology (#1917021253)
Second Semester 202../202..

COURSE INFORMATION	
Course Name: Pathophysiology (blended education) **Semester:** First/Second **Department:** Clinical Pharmacy & Pharmacy Practice **Faculty:** Pharmaceutical Sciences	**Course Code:** 1917021253 **Section:** As per semester **Core Curriculum**: 2013 Study Plan **JNQF Level**: 7
Day(s) and Time(s): According to HU courses timetable/semester **Classroom:** As per semester	**Credit Hours:** 3 **Prerequisites**: 131702252 (Physiology)

COURSE DESCRIPTION

This course introduces the basic terminology, concepts, etiologies, and characteristics of altered function, as well as causes and complications of cardiovascular, gastrointestinal, respiratory, liver, and renal diseases, as well as pain and cancer pathogenesis.

DELIVERY METHODS

- The course will be delivered using a combination of active learning strategies, and students will be encouraged to participate actively in the learning process.
- These include:
- PowerPoint lectures and active classroom-based discussion.
- Students are encouraged to participate actively in the learning process. Lectures start with questions about the student's prior knowledge of the topic and/or the previous lecture. Other questions are asked at the end of the lecture to gain insight into the students' competencies (to verify whether students have completely understood the topic). In addition, the topic's main ideas during a lecture should be connected between this course and subsequent courses. This will help students understand why they are taking these courses according to the core curriculum in a specific order.

- Video lectures on YouTube or animation shows to have a complete picture of the pathogenesis stages of certain diseases.
- Sound recordings of lectures; thus, students can return and listen to them as much as they need.

FACULTY INFORMATION

Names	**1- Dr. Amjad Zuhier Salem Alrosan** **2- Dr. Abdelrahim Mohammed Abdelrahim Alqudah**
Academic Title:	**Assistant Professors**
Office Location:	**Third Floor**
Telephone Number:	**Extensions:**
Email Address:	**1- amjadz@hu.edu.jo** **2- abdelrahim@hu.edu.jo**
Office Hours:	**As announced per semester** ***Please send an e-mail (as mentioned above) to meet at any other time.***

REFERENCES AND LEARNING RESOURCES

Required Textbooks:

1- Principles of Anatomy and Physiology

Gerard J. Tortora, Bryan H. Derrickson, Principles of Anatomy and Physiology, 16th Edition, 2020, ISBN: 9781119662686

2- Essentials of Pathophysiology: Concepts of Altered States

Carol Porth, Essentials of Pathophysiology: Concepts of Altered States, 5th Edition, 2020, ISBN-13: 9781975107192.

3- Robbins & Cotran Pathologic Basis of Disease (Robbins Pathology)

Vinay Kumar, Abul K. Abbas, Jon C. Aster, Robbins & Cotran Pathologic Basis of Disease (Robbins Pathology), 10th Edition, 2021, ISBN-13: 9780323531139

COURSE OBJECTIVES

After course completion, students will be able to:

1. Understand the concept of pathophysiology in health and disease.
2. Describe the pathogenesis and types of pain.
3. Identify the possible complications of the diseases.
4. Describe the mechanisms of body reaction toward certain diseases, including the cardiovascular system, respiratory, gastrointestinal, endocrine, liver, and renal diseases.

COURSE INTENDED LEARNING OUTCOMES (CILOs)

A. Foundational Knowledge

A.1 Recognize the terminology used in disease state and the aspects of the altered disease process, including etiology, pathogenesis, and signs and symptoms.

A.2 Describe the relation of disease pathophysiology to the complications it may cause.

A.3. Describe the mechanism of inflammation and pain and its relation to conditions.

A.4 Identify the connection between disease pathophysiology and the mechanism of action for the drugs used in treatment.

A.5 Identify the use of specific drug targets in treating diseases.

B. Essentials for Practice and Care

B.1 Connecting pathohysiology with pharmacology and explaining to students their future roles as pharmacists and Healthcare Providers (in influencing medicine optimization, safety, efficacy, and cost-effectiveness of medication use, etc.).

C. Approach to Practice and Care

C.2 Educate students in enduring ways (i.e., medical databases) about imparting the most accurate information**.**

ACADEMIC SUPPORT

It is The Hashemite University policy to provide educational opportunities that ensure fair, appropriate and reasonable accommodation to students who have disabilities that may affect their ability to participate in course activities or meet course requirements. Students with disabilities are encouraged to contact their instructor to ensure that their individual needs are met. The University through its Special Need section will exert all efforts to accommodate for individual's needs.

Special Needs Section:

Tel: **00962-5-3903333** **Extension:** **4209**

Location: **Students Affairs Deanship/ Department of Student Welfare Services**

Email: **amalomoush@hu.edu.jo**

amalomoush@staff.hu.edu.jo

COURSE REGULATIONS

Participation

Class participation and attendance are important elements of every student's learning experience at The Hashemite University, and the student is expected to attend all classes. A student should not miss more than 15% of the classes during a semester. *Those exceeding this limit of 15% will receive a failing grade regardless of their performance*. It is a student's responsibility to monitor the frequency of their own absences. **Attendance record begins on the first day of class irrespective of the period allotted to drop/add and late registration. It is a student's responsibility to sign-in; failure to do so will result in a non-attendance being recorded.**

In exceptional cases, the student, with the instructor's prior permission, could be exempted from attending a class provided that the number of such occasions does not exceed the limit allowed by the University. The instructor will determine the acceptability of an absence for being absent. A student who misses more than 25% of classes and has a valid excuse for being absent will be allowed to withdraw from the course.

Sharing of course materials is forbidden. No course material including, but not limited to, course outline, lecture hand-outs, videos, exams, and assignments may be shared online or with anyone outside the class. Any suspected unauthorized sharing of materials will be reported to the university's Legal Affairs Office. If a student violates this restriction, it could lead to student misconduct procedures.

Plagiarism

Plagiarism is considered a serious academic offense and can result in your work losing marks or being failed. HU expects its students to adopt and abide by the highest standards of conduct in their interaction with their professors, peers, and the wider University community. As such, a student is expected not to engage in behaviours that compromise his/her own integrity as well as that of the Hashemite University.

Plagiarism includes the following examples, and it applies to all student assignments or submitted work:

- **Use of the work, ideas, images or words of someone else without his/her permission or reference to them.**
- **Use of someone else's wording, name, phrase, sentence, paragraph or essay without using quotation marks.**
- **Misrepresentation of the sources that were used.**

The instructor has the right to fail the coursework or deduct marks where plagiarism is detected

Student Complaints Policy

Students at The Hashemite University have the right to pursue complaints related to faculty, staff, and other students. The nature of the complaints may be either academic or non-academic. For more information about the policy and processes related to this policy, you may refer to the students' handbook.

Others

- At the beginning of the lectures, be on time and don't leave before the end of the lecture without an acceptable excuse.
- If you missed a class, it is your responsibility to find out about any announcements or assignments you have missed.
- For any clarification, please communicate with your instructor at his posted office hours or by appointment.
- Switch off your mobile or keep it silent throughout the lecture.
- Listen well to the lecture and avoid side discussions, if you have a question, ask your instructor and not your colleague.
- Exams are scheduled to be given three times throughout the semester; you are expected to attend all. If not, make-up exams will be offered for valid reasons. It may be different from regular exams in content and format.
- Cheating, academic misconduct, fabrication, and plagiarism will not be tolerated, and the university policy will be applied.

COURSE ASSESSMENT

Course Calendar and Assessment

Students will be graded through the following means of assessment:

Assessment	Grade Weighting	Deadline Assessment
First Exam	30%	~ 6th week
Second Exam	30%	~ 10th week
Final Exam	40%	~ 15th /16th week

Description of Exams

Test questions will predominately come from the material presented in the lectures. Semester exams will be conducted during the regularly scheduled lecture period. The exam will consist of a combination of multiple-choice, true and false, and/or short answers.

No make-up exams will be given. Only documented absences will be considered as per HU guidelines. Make-up exams may be different from regular exams in content and format.

Grades are not negotiable and are awarded according to the following criteria*:

Letter Grade	Description	Grade Points
A+	Excellent	4.00
A		3.75
A-		3.50
B+	Very Good	3.25
B		3.00
B-		2.75
C+	Good	2.50
C		2.25
C-		2.00
D+	Pass	1.75
D	Pass	1.50
F	Fail	0.00
I	Incomplete	-

WEEKLY LECTURE SCHEDULE AND CONTENT DISTRIBUTION

"Lecture hours and weeks are approximate and may change as needed"
Note: For the 2 lecture periods per week (S/T, M/W), one lecture period covers 1.5 lecture hours (75 minutes). The course content specifies chapters of the textbook that will be included in exams.

70% of the lectures are delivered by face-to-face learning.

Week number	No. of Hours	CILOs	Subject	Delivery methods	Assessment methods
1	**1.5**	**A** **C**	**<u>Introduction to Pathophysiology</u>**	Active Classroom-Based Discussions. PowerPoint Lectures. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
1-3	**7.5**	**A** **B**	**<u>Heart Diseases</u>** -Introduction to cardiovascular function. -Ischemic heart disease. -Heart failure. -Stroke. -Arrhythmia	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
3-4	**6**	**A** **B**	**<u>Vascular Diseases</u>** -Hypertension. -Atherosclerosis. -Varicosis. -Embolism. .	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).

5	**1.5**	**A** **B**	**<u>Pathophysiology of coagulation</u>**	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
6	**3**	**A** **B**	**<u>Renal Diseases</u>** - Acute and chronic renal failure. - Urinary tract infection.	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
7-8	**6**	**A** **B**	**<u>Liver Diseases</u>** - Hepatitis. - Liver cirrhosis. - Liver cancer. - Pancreatitis.	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
9	**3**	**A** **B**	**<u>Respiratory Diseases</u>** - Asthma pathophysiology. - COPD.	PowerPoint Lectures. Active Classroom-Based Discussions.	Exams. Oral questions by choosing students to answer randomly (with no

				Relevant Videos.	mark).
10	**3**	**A** **B**	**<u>Gastrointestinal Diseases</u>** - Gastric ulcer. - Intestinal diseases. - Colorectal cancer. .	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
11	**1.5**	**A** **B**	**<u>Endocrine diseases</u>** - Diabetes mellitus.	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
11-12	**3**	**A** **B**	**<u>Nervous System</u>** - Somatosensory function, pain, and headache.	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams. Oral questions by choosing students to answer randomly (with no mark).
13	**3**	**A** **B** **C**	**<u>Inflammation</u>**	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant	Exams. Oral questions by choosing students to answer randomly (with no mark).

				Videos.	
14	**3**	**A C**	**<u>Cancer</u>**	PowerPoint Lectures. Active Classroom-Based Discussions. Relevant Videos.	Exams Oral questions by choosing students to answer randomly (with no mark).
15			University Final Exams		