

The University of Jordan

Faculty: Pharmacy
Pharmacy

Department: Biopharmaceutics and Clinical

Program: BsC

Academic Year/ Semester: Fall 2014

Course Name Pathophysiology-1203301

Credit hours	3	Level	3	Pre-requisite	Physio;ogy 2
Coordinator/ Lecturer	Eman Alefishat	Office number	102	Office phone	23366
Course website	http://elearning.ju.edu.jo/	E-mail	E.Alefishat@JU.edu.jo	Place	Pharmacy

Office hours					
Day/Time	Sunday	Monday	Tuesday	Wednesday	Thursday
12:00-13:00					

Course Description

This module explains the pathophysiological basis of common diseases such as diabetes, heart failure, and asthma. It provides an essential understanding of the mechanism of such diseases. The module will also cover both symptoms and disease progression

Learning Objectives

1. To enhance student's knowledge of pathophysiological basis of common diseases such as cellular response to injury/stress , inflammation, and common carcinogenesis pathways.
2. To provide students with the ability to correlate the symptoms and progression of diseases with the pathophysiology of these diseases.
3. To provide students with the ability to utilize the knowledge of the disease.to interpret clinical data and design treatment protocols.
4. To provide the students with the basis for more advanced courses in pharmacotherapy.

Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

A. Knowledge and Understanding: Student is expected to

A1-To understand the basic pathophysiological processes behind a certain disease

A2- To know and expect the clinical manifestations of diseases discussed in the module

B. Intellectual Analytical and Cognitive Skills: Student is expected to

B1- To predict the effect of certain factors on disease progression based on their pathophysiological knowledge

B2 To expect what kind of long term complications can result from such pathophysiological changes

C. Subject-Specific Skills: Student is expected to

C1- Analyse clinical cases based on their knowledge

C2- predict the effect of certain parameters on common pathophysiological processes

D. Transferable Key Skills: Students is expected to

D1-Critical thinking

D2-Communication

ILOs: Learning and Evaluation Methods

ILO/s	Learning Methods	Evaluation Methods
A1,A2,B1,B2,C1,C2,D1,D2	<u>Lectures and Discussions,</u>	<u>Exam, Quiz,...</u>

Course Contents

Content	Reference	Week	ILO/s
Introduction	Pathologic basis of disease		
Cellular responses to stress and toxic insults	Pathologic basis of disease	1-2	
Apoptosis	Pathologic basis of disease	3	
Inflammation: Definition, classification and involvement in other diseases	Pathologic basis of disease	4	
Acute inflammation	Pathologic basis of disease	4	
Inflammatory mediators	Pathologic basis of disease	6	
Chronic inflammation	Pathologic basis of disease	6	
Systemic effects of inflammation	Pathologic basis of disease	6	
Angiogenesis	Pathologic basis of disease	6	
Thrombosis	Pathologic basis of disease	7	
Dyslipidemia Atherosclerosis--	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	8-9	
Ischemic heart diseases	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	10	
Hypertension	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach 	11	

	<ul style="list-style-type: none"> • Pathologic basis of disease 		
Heart failure	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	12-13	
Arrhythmia	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach 	13	
Diabetes mellitus	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	14-15	
Asthma	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach 	15	
Classification and characterization of benign and malignant neoplasms	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	16	
Cancer epidemiology	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of 	16	

	disease		
Molecular basis of multi-step carcinogenesis	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	16	
Invasion and metastasis	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	16	
Grading and staging of tumors	<ul style="list-style-type: none"> • Pharmacotherapy a pathophysiologic approach • Pathologic basis of disease 	16	
Renal failure		16	
Final Exam		17	

Learning Methodology
Lectures

Projects and Assignments

None

Evaluation

Evaluation	Point %	Date
Midterm Exam	40	
Project	0	
Quiz	10	
Final Exam	50	

References:

Text Books/References	Course Name and Number:	Pathophysiology 1203301	
ISBN	Title	Author	Year
ISBN: 9780808924029 (hbk.)	Robbins and Cotran Pathologic Basis of Disease, Professional Edition	Vinay Kumar, Abul K. Abbas, Jon C. Aster	2010
ISBN 9780071800532	Pharmacotherapy: A Pathophysiologic Approach, 9e	Joseph T. DiPiro, Robert L. Talbert, Gary C. Yee, Gary R. Matzke, Barbara G. Wells, L. Michael Posey	2014
ISBN-13: 978-0071806008	Pathophysiology of Disease: An Introduction to Clinical Medicine 7/E	Gary D. Hammer, Stephen J. McPhee	2014
ISBN: 978-0-323-07891-7	Understanding Pathophysiology, 5th Edition	Sue E. Huether, RN, PhD and Kathryn L. McCance, RN, PhD	2013
ISBN: 978-0-323-08854-1	Pathophysiology, 7th Edition	Kathryn L. McCance, RN, PhD and Sue E. Huether, RN, PhD	2015
ISBN: 978-1-4557-2650-9	Pathophysiology, 5th Edition	Lee-Ellen C. Copstead-Kirkhorn, PhD, RN and Jacquelyn L. Banasik, PhD, ARNP	2014

