Philadelphia University	PHILADELPHIA UNIVERSITY THE WAY TO THE FUTURE	**Approved Date: 10/2024**
Faculty: Pharmacy		**Issue: 1**
Department: -		**Credit Hours: 3**
Academic Year:2025/2026	**Course Syllabus**	**Bachler**

Course Information

Course No.	Course Title	Prerequisite
0520300	Pathophysiology	Anatomy and Physiology 2 (0521215)

Course Type	Class Time	Room No.
☐Univirsity Requirement ☐ Major Requirement ☐ Compulsory ■Faculty Requirement ☐Elective	Sec 1: Sat, Mon: 09:45-10:35	602

Course Level*				Hours			Equivalent hours*
4th	5th	6th	7th	Contact	Independent Learning	Assessment	9
☐	☐	☐	■	45	42	3	
				Total: 90			

*According to JNQF standards

Instructure Information

Name	Office No.	Phone No.	Office Hours	E-mail
Ms. Asma El-Shara	Faculty of Pharmacy 5601/4	+962263744 4 Ext: 2641	Sat, Mon 11:15-12:30	aelshara@philadelphia.edu.jo

Course Delivery Method

■Blended	☐ Online	☐Physical
Learning Model		
Percentage	Synchronous	Asynchronous	Physical
	0%	34%	66%

Course Description

This course is designed to provide the students with knowledge about disease and dysfunction from an anatomical and physiological perspective, emphasizing integrating knowledge of tissues and organ systems into a holistic framework of body function and dysfunction. It will give the student a strong theoretical perspective on the mechanisms of normal and altered functioning of human cells, organs, and organ systems. Using a comprehensive study guide regarding additional readings, course content is presented in a way that fosters a critical and conceptual foundation emphasizing the integration of organ systems and their function within the body. Particular emphasis is placed on the widespread effects upon other systems following the dysfunction of a particular organ or system of the human body and the ability to discuss specific disorders concerning general concepts of dysfunction.

Course Learning Outcomes

Number	Outcome	Corresponding Program Outcomes
K1	Define pathophysiology and the concepts of health and disease	KP1
K2	Describe the aspects of the disease process including etiology, pathogenesis, signs and symptoms, etc	KP1
K3	Recognize the basic mechanism of organ disorders.	KP1
K4	Describe the mechanism and body reaction to the body changes associated with different diseases in the different systems as: cardiovascular system, respiratory system, endocrine system etc	KP1
K5	Describe the morphologic effects produced by the disease in different systems (e.g., cardiovascular system, respiratory system, endocrine system, etc)	Kp2
S1	Interpret evidence of acute and chronic disease	Sp2

Learning Resources

Course Textbook	**Pharmacotherapy: a pathophysiological approach**, Joseph T. DiPiro, Gary C. Yee, L. Michael Posey, Stuart T. Haines, Thomas D. Nolin, Vicki L. Ellingrod,11th edition; 2021; ISBN-13: 978-1260116816
Supporting References	• Understanding Pathophysiology, Sue E. Huether, 5th edition; 2008; ISBN-10: 0323078915 • Essentials of pathophysiology: concepts of altered health states, Porth, Carol Mattson, Wolters Kluwer /Lippincott WilliamsandWilkins,1st Edition 2010. • Pathophysiology, Damjanvo, Ivan, Philadelphia: Saunders/Elsevier 1st edition, 2009.

	• Essentials of pathophysiology: concepts of altered health states, Porth, Carol Mattson, 2007, 2d edition. • Pathophysiology: functional in human health, Braun, Carie A. Anderson Cindy M. Lippincott, Williams and Wilkins, 1st edition, 2007.
Electronic Materials	• Illustrative videos for pathogenesis of diseases
Supporting Websites	www.scinecedirect.com, www.youtube.com www.freemedicaljournals.com www.ahajournals.org
Teaching Environment	■ **Classroom** ☐ **Laboratory** ☐ **Learning Platform** ☐ **Other**

Meetings and Subjects Time Table

Week	Topic	Learning Method*	Task	Learning Material
1	**The vision and mission of Pharmacy Faculty Course syllabus** • Introduction to pathophysiology course	Lecture		Vision and Mission of faculty of pharmacy Course syllabus Text Book, part 1
2	**Basics and principles of Pathophysiology:** • Introduction and cell and basic terms of pathophysiology, General Features of Inflammation.	Lecture		Text Book, chapters1,2,3
3	**Basics and principles of Pathophysiology:** • Pathologic Aspects of Repair, Edema, Thrombosis, Embolism, Infarction and Shock	Lecture	Quiz	Text Book, chapters 3,4
4	**Pathophysiology of cardiovascular system diseases:** • Cardiovascular system Disorders: hypertension, Aneurysms and Dissections, Atherosclerosis, Vasculitis and vascular Tumors • Heart disorders: myocardial infarction, heart failure, Congenital heart disease, Ischemic cardiomyopathy, Ischemic Heart Disease, Angina pectoris,	Lecture	Quiz	Text Book chapters 10,11
5	**Pathophysiology of cardiovascular system diseases:** • Arrhythmias, Cor pulmonale, Valvular Heart Disease, Infective endocarditis, Cardiomyopathy and Myocarditis	Lecture Collaborative learning	Homework	Text Book chapters 10,11
6	**Pathophysiology of respiratory system diseases:**	Lecture	Video assessment	Text Book chapters 9,13

	Respiratory disorders: Asthma, bronchitis, Tuberculosis, Acute Respiratory Distress Syndrome,			
7	**Pathophysiology of respiratory system diseases:** Asbestos, Pneumoconiosis, Sarcoidosis, Pulmonary Embolism, pneumonia and Carcinomas of the Lung	Lecture		Text Book chapters 9,13
8	**Pathophysiology of respiratory system diseases:** • Pneumonia and Carcinomas of the Lung	Lecture		
9	**Pathophysiology of Renal system diseases:** • Renal disorders: Nephrotic Syndrome, renal failure, stone, Membranous nephropathy, Nephritic Syndrome, Tubulointerstitial Nephritis, Acute Tubular Injury, Arterionephrosclerosis, Adult polycystic kidney and Renal Cell Carcinoma	Lecture	Quiz	Text Book chapters 10,11
10	**Pathophysiology of Endocrine system diseases** • Endocrine disorders: Diabetes Mellitus, Cushing syndrome, infertility, Hyperpituitarism, Hashimoto thyroiditis, Graves' Disease, Hyperparathyroidism and Obesity	Lecture Collaborative learning	Homework	Text Book chapters 10,11
11	**Pathophysiology of Cerebrovascular Diseases:** • Cerebrovascular Diseases: stroke Cerebral Edema, Hydrocephalus, Herniation, Stroke, Cerebro-Vascular Accidents (CVA), Subarachnoid Hemorrhage and Saccular Aneurysms	Lecture project based learning		Text Book chapters 23
12	**Pathophysiology of gastrointestinal tract diseases:** Digestive system disorders: Oral Inflammatory Lesions, Diseases of the Esophagus, stomach and intestine (ulcers, Gastric Polyps and Tumors, Intestinal Obstruction,	Lecture	Quiz	Text Book chapters 20
13	**Pathophysiology of gastrointestinal tract diseases:** Disorders of Bowel, Malabsorptive Diarrhea, Infectious Enterocolitis, Diverticulitis, Ulcerative colitis and acute appendicitis.	Lecture Collaborative learning		Text Book chapters 15,16,17
14	**Pathophysiology of blood system diseases** • Blood diseases: anemia and leukemia	Lecture		Text Book chapters 6,8,10,11

15	**Pathophysiology of Male and female genital diseases**	Lecture		Text Book chapters 18,19
16	**Final Exam**			

*Includes: lecture, flipped Class, project-based learning, problem solving based learning, collaboration learning.

Course Contributing to Learner Skill Development

Using Technology
• Using Excel to construct tables and plots • Using power point or any other relevant programs for preparing presentations • Operating equipment of granulation and tablet press in addition to tablet quality testing equipment
Communication Skills
• Report writing • Oral presentation of selected topics
Application of Concept Learnt
• Practical application of tablet compaction and quality control testing in the corresponding practical course

Course Contributing to Learner Skill Development

Using Technology
Using Microsoft programs (word, power point), YouTube videos, Google and scientific websites
Communication Skills
Videos and home works discussion
Application of Concept Learnt
Transfer learnt Pathophysiological information about body systems and diseases to others

Assessment Methods and Grade Distribution

Assessment Methods	Grade	Assessment Time (Week No.)	Course Outcomes to be Assessed
Mid Term Exam	**% 30**	6th	K1-K5, S1
Term Works*	**% 30**	Continuous	S1
Final Exam	**% 40**	16th	K1-K5,S1
Total	**%100**		

* Include: quizzes, in-class and out of class assignment, presentations, reports, Videotaped assignment, group or individual project.

Alignment of Course Outcomes with Learning and Assessment Methods

Number	Learning Outcomes	Learning Method*	Assessment Method**
Knowledge			
K1	Define pathophysiology and the concepts of health and disease	Lecture	Quizzes Exam Home work
K2	Describe the aspects of the disease process including etiology, pathogenesis, signs and symptoms, etc	Lecture	Exam Video assignments
K3	Recognize the basic mechanism of organs disorders.	Lecture Collaborative learning	Exam Home work
K4	Describe the mechanism and body reaction to the body changes associated with different diseases in the different systems as: cardiovascular system, respiratory system, endocrine system etc	Lecture Project Based Learning	Exam Quizzes
K5	Describe the morphologic effects produced by the disease in different systems (e.g., cardiovascular system, respiratory system, endocrine system, etc)	Lecture Project Based Learning	Exam Quizzes
Skills			
S1	Interpret evidence of acute and chronic disease	Lecture Project Based Learning	Video assignment Home work

*Include: lecture, flipped class, project-based learning, problem solving based learning, collaboration learning.
** Include: quizzes, in-class and out of class assignments, presentations, reports, videotaped assignments, group or individual projects.

Course Polices

Policy	Policy Requirements
Passing Grade	The minimum pass for the course is (50%) and the minimum final mark is (35%).
Missing Exams	• Anyone absent from a declared semester exam without a sick or compulsive excuse accepted by the dean of the college that proposes the course, a zero mark shall be placed on that exam and calculated in his final mark. • Anyone absents from a declared semester exam with a sick or compulsive excuse accepted by the dean of the college that proposes the course must submit proof of his excuse within a week

	from the date of the excuse's disappearance, and in this case, the subject teacher must hold a compensation exam for the student. • Anyone absents from a final exam with a sick excuse or a compulsive excuse accepted by the dean of the college that proposes the material must submit proof of his excuse within three days from the date of holding that exam.
Attendance	The student is not allowed to be absent more than (15%) of the total hours prescribed for the course, which equates to six lecture days (n t) and seven lectures (days). If the student misses more than (15%) of the total hours prescribed for the course without a satisfactory or compulsive excuse accepted by the dean of the faculty, he is prohibited from taking the final exam and his result in that subject is considered (zero), but if the absence is due to illness or a compulsive excuse accepted by the dean of the college that The article is introduced, it is considered withdrawn from that article, and the provisions of withdrawal shall apply to it.
Academic Integrity	Philadelphia University pays special attention to the issue of academic integrity, and the penalties stipulated in the university's instructions are applied to those who are proven to have committed an act that violates academic integrity, such as cheating, plagiarism (academic theft), collusion, intellectual property rights.

Program Learning Outcomes to be assessed in this Course

Number	Learning Outcome	Course Title	Assessment Method	Targeted Performance level
Sp2	Appreciate the importance of clear communication among health professionals and their clients in situations involving disordered physiology	Pathophysiology	Case Study report	75% of students have a minimum score 7 out of 10

Description of Program Learning Outcomes Assessment Method

Number	Detailed Description of Assessment
Sp2	Case studies: titles will be announced, and students will choose the case-study with questions and work in groups. The students will prepare a report with a diagnosis and answers

Assessment Rubric of the Program Learning Outcomes