

SYLLABUS**PHA6935****SYSTEMS PHYSIOLOGY AND PATHOPHYSIOLOGY – II****3 Credit Hours****Spring 2020****OBJECTIVES**

Systems Physiology and Pathophysiology-II is the second of a two-course sequence that aims to provide graduate students in the Department of Pharmacodynamics with an integrated knowledge base in the physiological functions of the human body and pathological changes pertinent to the development and progression of various diseases. As an integral component of the Ph. D. curriculum, the two courses will provide students with a solid understanding of human pathophysiology in preparation for their dissertation research. Specifically, upon completion of the sequence, students should be able to:

1. Understand physiological processes at the molecular, cellular, organ and system level;
2. Understand mechanisms responsible for the control and coordination of various functions;
3. Understand the integration of the organ systems in maintaining homeostasis;
4. Understand the mechanisms of disease initiation, progression and sequela;
5. Recognize the signs and symptoms of major disease states or processes; and
6. Demonstrate familiarity with normal and abnormal values of physiological variables.

FACULTY**Instructors****Email**

Dr. Guillaume de Lartigue	gdelartigue@cop.ufl.edu
Dr. Christina DeRemer	cderemer@cop.ufl.edu
Dr. Maureen Keller-Wood	kellerwd@cop.ufl.edu
Dr. Bin Liu	liu@cop.ufl.edu
Dr. Brandon Warren	Brandon.warren@cop.ufl.edu
Dr. Lihui Yuan	yuanlh@cop.ufl.edu

Coordinator: Dr. Bin Liu; Email: liu@cop.ufl.edu; Phone: 352-273-7727; Office: MSB P2-31

COURSE FORMAT

The course consists of multiple components:

- (a) Lecture videos of PHA5561, Pathophysiology and Patient Assessment-II
- (b) Interactive sessions with instructors
- (c) Assignments from instructors and/or presentations by students

COURSE MATERIALS

Course materials include lecture videos, slides, and reading assignments.

The recommended textbook for the course will be: Pathophysiology of Disease: An Introduction to Clinical Medicine, 6e; **Stephen J. McPhee, Gary D. Hammer.**

Faculty may also provide review chapters or articles and research papers to the students for the discussion sessions.

ATTENDANCE POLICY

Students are required to watch all lecture videos and attend all interactive sessions.

EVALUATION OF PERFORMANCE

Grades will be based on performance on multiple choice and essay exams that are based on materials covered in the Discussion Sessions and additional assignments from the instructors. The point breakdown is as follows.

Percentage	
Multiple Choice Exam	50%
Essay Exam	50%
100%	

Makeup for missing an exam/required activity

When an emergency/occasion arises that may make it impossible for a student to take a regularly scheduled exam or attend a pre-schedule activity, inform the course coordinator and the relevant instructor at the earliest possible time. Afterwards, follow through with the course coordinator and the relevant instructor to discuss and set up the makeups.

Grading Scale

Percent Grade	Letter Grade	GPA
≥ 93.0%	A	4.00
90.0% - 92.9%	A ⁻	3.67
87.0% - 89.9%	B ⁺	3.33
83.0% - 86.9%	B	3.00
80.0% - 82.9%	B ⁻	2.67
77.0% - 79.9%	C ⁺	2.33
73.0% - 76.9%	C	2.00
70.0% - 72.9%	C ⁻	1.67
67.0% - 69.9%	D ⁺	1.33
63.0% - 66.9%	D	1.00
60.0% - 62.9%	D ⁻	0.67
< 60.0%	E	0.00

PROFESSIONAL CONDUCT

Students are expected to adhere to the University of Florida Honor Code “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity”. Academic dishonest will result in earning a failing grade (i.e., E) for the entire course and additional consequences dictated by University of Florida code of conduct.

Appendix A: Schedule: Updated

Date	Time	Lecture Topic	Instructor
Module 1: Immune Function and Inflammatory Response			
01/06-01/10		Innate Immunity (1 hr) Adaptive Immunity, Part I & II (2 hr)	Dr. Liu Dr. Liu
01/13-01/17		Acute Inflammation (1 hr) Chronic Inflammation (1 hr) Hypersensitivity and Wound Healing (1.5 hr)	Dr. Liu Dr. Liu Dr. Liu
01/20 (Mon)	3 - 5 pm	Discussion (Room)	Dr. Liu
Module 2: Gastrointestinal (GI) System			
01/21-01/24		Introduction to GI Disorders (1 hr) Esophageal Disorders (0.5 hr)	Dr. de Lartigue Dr. de Lartigue
01/27-01/31		Gastric Disorders (1 hr) Liver Disorders (1 hr) Pancreas Disorders (1 hr)	Dr. de Lartigue Dr. de Lartigue Dr. de Lartigue
02/03-02/06		Small Intestinal Disorders (0.75 hr) Large Intestine Disorders (1 hr)	Dr. de Lartigue Dr. de Lartigue
02/7 (Fri)	3 - 5 pm	Discussion (Room) (2 hr)	Dr. de Lartigue
02/10 (Mon)	3-5 pm	Exam 1 (Room)	
Module 3: Neurological System			
02/11-02/14		Pain: Signal Reception, Transduction and Perception (1 hr) Amino Acid Neurotransmitters (1 hr)	Dr. Warren Dr. Warren
02/17-02/21		Biogenic Amines: Catecholamines, Norepinephrine, Epinephrine, Dopamine (1.25 hr) Biogenic Amines: Histamine and Serotonin (1 hr) Cholinergic System (0.75 hr)	Dr. Warren Dr. Warren Dr. Warren
02/24-02/27		Opioids (1.5 hr) Fatty Acid Neurotransmitters (1 hr)	Dr. Warren Dr. Warren
02/28 (Fri)	3 - 5 pm	Discussion (Room)	Dr. Warren

03/02-03/05		Movement Regulation and Disorders (1 hr) Stroke (1 hr)	Dr. Liu
03/6 (Fri)	3 - 5 pm	Discussion (Room)	Dr. Liu

03/09 (Mon) 3-5 pm Exam 2 (Room)

Module 4: Endocrine System

03/10-03/13		Principles of Endocrinology, Part 1 (0.5 hr) Principles of Endocrinology, Part 2 (0.75 hr)	Dr. Yuan Dr. Yuan
03/16-03/20		Male Reproduction (0.75 hr) Female Reproduction, Part 1 (1 hr) Female Reproduction, Part 2 (0.75 hr)	Dr. Keller-Wood Dr. Keller-Wood Dr. Keller-Wood
03/23 (Mon)	3 - 5 pm	Discussion (Room)	Dr. Keller-Wood
03/24-03/27		Bone Growth and Calcium Homeostasis (1 hr)	Dr. DeRemer
03/30-04/03		Glucose and Lipid Metabolism (1.75 hr) Regulation of Food Intake and Obesity (1 hr)	Dr. Yuan Dr. Yuan
04/06-04/09		Diabetes Overview (2 hr)	Dr. Yuan
04/10 (Fri)	3 - 5 pm	Discussion (Room)	Dr. Yuan
04/13 (Mon)	3-5 pm	Exam 3 (Room)	
