

**College of Public Health and Health Professions
Syllabus**

**PHT6153: *Human Physiology*
3 credit hours
Fall Semester, 2013**

Class time and location

Monday: 10:40-11:30, **G312**; Tuesday: 3:00-3:50, **G301**; Friday 8:35-10:25, **G114**

Primary Instructor

David Fuller, MS, PhD

Email: dfuller@phhp.ufl.edu

Phone: 273-6634

Office: HPNP Bldg, PT 1153

Additional Instructors

Andrew Judge, PhD

Email: arjudge@phhp.ufl.edu

Phone: 273-9220

Sean Forbes, PhD

Email: scforbes@ufl.edu

Teaching Assistant

Harneet Arora, PT

Email: harora@ulf.edu

Course Purpose

The purpose of this course is for first year physical therapy students to learn the fundamentals of human physiology. This will provide a foundation for subsequent courses in the physical therapy curriculum. Accordingly, the intent is for students to gain a basic understanding of physiology and pathophysiology of different physiological systems. Lectures will provide an overview of the various physiological systems (e.g. respiratory, renal, etc.). In general, the lectures will follow the textbook chapters both in content and order of presentation. Please see the next page of the syllabus for a detailed list of lecture topics.

Overall course Objectives

Upon successful completion of this course, students should be able to:

1. *Describe the control and function of each physiological system (see syllabus) using both words and diagrams*
2. *Apply the principles of physiology to the understanding of pathophysiology.*
3. *Use physiology terminology appropriately to communicate with colleagues and patients.*

Textbook

1. Vander's Human Physiology: The Mechanisms of Body Function. 13th Edition. Publisher: McGraw Hill

Topical Outline

A detailed outline of the course is provided on the next page.

Weekday	Date	Lecture	*Reading assignment	Instructor	Exams
Friday	23-Aug	Introduction to Physiology		Fuller	
Monday	26-Aug	Homeostasis	Chapter 1	Fuller	
Tuesday	27-Aug	Chemical composition of the body	Chapter 2	Judge	
Friday	30-Aug	Cell structure & organelles, DNA & RNA	Chapter 3, pp. 45-56	Judge	
Monday	2-Sep	Labor Day - No Class			
Tuesday	3-Sep	Genetic code	Chapter 3, pp. 57-66	Judge	
Friday	6-Sep	Genetic code; Gene therapy	handout	Judge	
Monday	9-Sep	Protein binding	Chapter 3, pp. 66-71	Judge	
Tuesday	10-Sep	Introduction to Metabolism	Chapter 3, pp. 78-90	Judge	
Friday	13-Sep	Introduction to Metabolism	Chapter 3, pp. 78-90	Judge	
Monday	16-Sep	Movement of molecules	Chapter 4, pp. 96-104	Judge	
Tuesday	17-Sep	Movement of molecules	Chapter 4, pp. 105-113	Judge	
Friday	20-Sep	Receptors and signal transduction	Chapter 5	Judge	
Monday	23-Sep	Neurons and membrane potential	Chapter 6, pp. 136-155	Forbes	
Tuesday	24-Sep	Neurons and action potentials	Chapter 6, pp. 136-155	Forbes	
Friday	27-Sep				Exam 1
Monday	30-Sep	Skeletal muscle	Chapter 9, pp. 251-275	Judge	
Tuesday	1-Oct	Skeletal muscle	Chapter 9, pp. 251-275	Judge	
Friday	4-Oct	Cardiac and smooth muscle	Chapter 9, pp. 279-287	Judge	
Monday	7-Oct	Sensory physiology	Chapter 7, pp. 187-196	Fuller	
Tuesday	8-Oct	Sensory physiology	Chapter 7, pp. 197-201	Fuller	
Friday	11-Oct	Control of movement: overview	handout	Fuller	
Monday	14-Oct	Endocrine	Chapter 11, pp. 313-323	Forbes	
Tuesday	15-Oct	Endocrine	Chapter 11, pp. 325-339	Forbes	
Friday	18-Oct	Autonomic nervous system	Chapter 6, pp. 173-180	Fuller	
Monday	21-Oct	Autonomic and cardiovascular	Chapter 6, pp. 173-180	Fuller	
Tuesday	22-Oct	Cardiovascular system	Chapter 12, pp. 359-375	Fuller	
Friday	25-Oct	Cardiovascular system	Chapter 12, pp. 377-396	Fuller	
Monday	28-Oct	Cardiovascular system	Chapter 12, pp. 397-416	Fuller	
Tuesday	29-Oct	Cardiovascular system	Chapter 12, pp. 417-420	Fuller	
Friday	1-Nov				Exam 2
Monday	4-Nov	Respiratory system	Chapter 13, pp. 435-448	Fuller	
Tuesday	5-Nov	Respiratory system	Chapter 13, pp. 448-460	Fuller	
Friday	8-Nov	Homecoming - No Class			
Monday	11-Nov	Veterans day - No Class			
Tuesday	12-Nov	Respiratory system	Chapter 13, pp. 460-470	Fuller	
Friday	15-Nov	GI	Chapter 15	Forbes	
Monday	18-Nov	GI	Chapter 15	Forbes	
Tuesday	19-Nov	GI	Chapter 15	Forbes	
Friday	22-Nov	Renal	Chapter 14	Fuller	
Monday	25-Nov	Renal	Chapter 14	Fuller	
Tuesday	26-Nov	Immune	Chapter 18	Forbes	
Friday	29-Nov	Thanksgiving Holiday - No Class			
Monday	2-Dec	Immune	Chapter 18	Forbes	
Tuesday	3-Dec	Immune	Chapter 18	Forbes	

Academic Honesty / Honor Code

In this professional program we are particularly sensitive to students submitting independent work and to using complete and accurate referencing in complying with the University of Florida Rules - 6CI-4.017 Student Affairs: Academic Honesty Guidelines. Further details regarding the University of Florida honesty policy is available at: <http://www.dso.ufl.edu/judicial/procedures/academicguide.php> and in your student handbook. All students are required to abide by the Academic Honesty Guidelines, the following pledge has been accepted by the University and is expected of all students: **"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity"**. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: **"On my honor, I have neither given nor received unauthorized aid in doing this assignment."**

Policy Related to Class Attendance

Attendance is mandatory. Please contact the instructors as soon as possible if you are unable to attend class for any reason. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis.

Policy Related to Make-up Exams

In extraordinary circumstances it may be possible to take an exam early or late. If for any reason you are unable to attend an exam at the last minute, you must notify the instructor as soon as possible. Personal issues with respect to exams will be handled on an individual basis.

Accommodations for students with disabilities

If you require classroom accommodation because of a disability, you must first register with the Dean of Students Office (<http://oss.ufl.edu/>). The Dean of Students Office will provide documentation to you, which you then give to the instructor when requesting accommodation. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students may occasionally have personal issues that arise in the course of pursuing higher education or that may interfere with their academic performance. If you find yourself facing problems affecting your coursework, you are encouraged to talk with an instructor and to seek confidential assistance at the University of Florida Counseling Center, 352-392-1575, or Student Mental Health Services, 352-392-1171. Visit their web sites for more information: <http://www.counsel.ufl.edu/> or <http://www.health.ufl.edu/shcc/smhs/index.htm#urgent>

The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services, including primary care, women's health care, immunizations, mental health care, and pharmacy services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: www.health.ufl.edu/shcc

Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789. BUT – *Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone - do not be afraid to ask for assistance.*

Office hours

Please call or email to set up an appointment.

Website

We will use the UF "Sakai" E-Learning System accessed at <https://lss.at.ufl.edu/> . Please check the website prior to attending class.

Professional Behavior

Professional behavior is critical for a successful transition from the classroom to the clinical setting. The faculty recognizes the importance of this by incorporating the development and evaluation of professional behavior into each academic course. Professional behavior is described in the Student Handbook and is exemplified by:

1. Attendance to all classes
2. Timeliness
3. Attentiveness.
4. Respectful and polite interaction with peers and instructors
5. Active learning as demonstrated by questions and discussion
6. Other behaviors as described on Professional Behaviors and Student Responsibilities in the Student manual.

Laptop & Smartphone policy

Laptop computers are permitted for taking notes. *However, internet use is not permitted during lectures. Texting or other use of phones is not permitted.*

Dress Code

Please review the policies for lecture attire in your Student Handbook.

Exams and scoring

This course will be graded according to the departmental guidelines located in the student handbook. We will follow the standard grading scale listed below. Exams will consist primarily of multiple choice questions but may also contain short written answers, fill-in-the-blank, and/or diagrams.

Participation

There will be an opportunity to participate in almost every lecture. This will be in the form of in-class written assignments and/or discussions. Written assignments will be turned in and graded on a 5-point scale. At the end of the semester, the points associated with in-class assignments will make up 10% of the overall course grade. If you do not attend class you cannot obtain the credit for that day.

Summary of grading

Exam 1:	30%
Exam 2:	30%
Exam 3:	30%
Participation:	10%

Scale

93-100% = A	4.0 grade point
90-92% = A-	3.67 grade point
87-89% = B+	3.33 grade point
83-86% = B	3.0 grade point
80-82% = B-	2.67 grade point
70-79% = C	2.0 grade point
60-69% = D	1.0 grade point
< 60% = E	0 grade point

Learning objectives

Each lecture will be accompanied by specific learning objectives. These objectives are provided to help you focus your studying. While the exams may cover material not specifically addressed in the learning objectives, the majority of the exam questions will derive from these objectives.

Powerpoint

PDF files of the lecture slides will be provided after each class.

How should I study for this course?

1. Read the assignments prior to class.
2. Review the learning objectives for each lecture. Also, answer all of the review questions and exam questions at the end of the chapter.
3. To best distill knowledge from the lectures, you should make drawings and/or outlines. These drawings/outlines will help you organize your notes and integrate knowledge.

The schedule, policies, and assignments described in this syllabus are subject to change in the event of extenuating circumstances or by mutual agreement between the instructor and the students.