

## **BIOLOGY 252 – FUNDAMENTALS OF HUMAN ANATOMY & PHYSIOLOGY**

### **Fall 2009 Course Information:**

This course is introductory, but is quite difficult and comprehensive. The lecture will primarily be a discussion of physiology of the human body, taking a systems-approach. Anatomy and histology will also be included in lecture, although the study of most anatomy will take place in the lab. The material taught in the lecture and the lab will be tested separately but the grades combined for the final course grade.

**Lecture:** TR at 12:30-1:45 in Carrington Hall, Room 009

**Laboratory:** Is a co-requisite. You CANNOT take the lecture without the lab. Labs will be taught by Teaching Assistants, coordinated by me. If you have a problem with lab, try to work things out with your TA before bringing it to my attention, but feel free to bring a problem to my attention.

**Prerequisites:** BIOL 101 & 101L.

### **About your Instructor:**

Dr. Corey Johnson ([johnsonc@med.unc.edu](mailto:johnsonc@med.unc.edu)).

Feel free to contact me by email. I'm difficult to reach by phone. I am 100% committed to being available to answer questions or explain difficult material, so if you need help in understanding anything, please stop by for help or email your question. **My office hours will be from 1-3pm Mondays and Fridays in Wilson 104A.** I will meet anytime outside of those hours (by appointment) for those who cannot make it during regular office hours.

### **Lecture Textbook:**

*Anatomy & Physiology*, by Marieb and Hoehn, 3<sup>rd</sup> edition. This book comes with a software study aid called InterActive Physiology that is not required but is a great study aid.

**Lab Manual:** For lab, you are NOT REQUIRED to purchase the lab manual "Human Anatomy Lab Manual," by Johnson. A free version will be made available to you on Blackboard. I highly recommend the manual for those of you who have trouble with, or desire further exercise in visualizing bone/muscle relationships. The optional manual contains black and white drawings for you to color. Kinesthetic learning such as this is very effective for those who are not great at memorizing lots of information and are more visual.

I strongly recommend purchasing access to the software "Practice Anatomy Lab 2.0" available at [www.practiceanatomy.com](http://www.practiceanatomy.com). Ask any former student who used it, and they will tell you how happy they were with it.

### **Philosophy of grading and testing**

I believe strongly in offering a difficult course that challenges the student. The student who receives an 'A' will have mastery of the subject matter (as is recommended by the university's

guidelines). The testing for this course will be based entirely on lectures. That doesn't mean the textbook or the powerpoint slides are useless, so use them... but use them wisely.

**Grading policy and other information:**

Outside of lecture, I will make any important information known through the 'announcements' section of Blackboard so be sure to check it often. Grades will be posted to blackboard as soon as they are available after exams. Your grade for this course will be determined by 3 non-cumulative exams and lab as follows:

**Exams (75%):** 3 exams will be given and each will comprise 25% of your final grade.

**Lab (25%):** The required lab comprises 25% of your final grade. There is no separate grade for lab. This will work in your favor, since lab grades are typically higher than lecture exam grades. Your TA will explain the details of lab grading.

**READ THIS, IF NOTHING ELSE: I will not be dropping your lowest grade. If you decide to remain enrolled in this course, make sure you are willing to take the grade you deserve based on your performance. You will be graded on the basis of your achievement alone, not your improvement.**

**Grading scale:**

93-100 A  
90-92 A-  
87-89 B+  
83-86 B  
80-82 B-  
77-79 C+  
73-76 C  
70-72 C-  
67-69 D+  
60-66 D  
<60 F

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DATE			TOPICS	READING
T	Aug	25	Introduction; Histology	4
R	Aug	27	The Integumentary system	5
T	Sept	1	Bone structure and function	6
R	Sept	3	Structure and function of joints; Intro to muscular system	8,9
T	Sept	8	Excitation-contraction coupling, energy use, performance	9
R	Sept	10	Intro to nervous system: organization and histology	11
T	Sept	15	Neurophysiology: action potentials and graded potentials	11
R	Sept	17	Functional anatomy of the CNS	12
T	Sept	22	Peripheral nervous system: spinal and cranial nerves	13 (part 2)
R	Sept	24	<b>EXAM #1</b>	-
T	Sept	29	Autonomic nervous system	14
R	Oct	1	Sensory pathways and receptors	13 (part 1)
T	Oct	6	Vision, olfaction, gustation	13 (part 1)
R	Oct	8	Equilibrium and hearing	13 (part 1)
T	Oct	13	Intro to the endocrine system; intracellular communication	15
R	Oct	15	Pituitary gland and its targets	15
T	Oct	20	Remaining endocrine glands	15
R	Oct	22	<b>No Class</b>	-
T	Oct	27	Heart physiology	17
R	Oct	29	Blood vessels and circulation	18
T	Nov	3	<b>EXAM #2</b>	-
R	Nov	5	Blood	16
T	Nov	10	Lymphatic and immune systems	19,20
R	Nov	12	Gas exchange and control of pulmonary ventilation	21
T	Nov	17	Physiology of the GI tract	22
R	Nov	19	Renal physiology; glomerular filtration	24
T	Nov	24	Fluid, electrolyte & pH balance	25
R	Nov	26	<b>Thanksgiving</b>	-
T	Dec	1	Male reproductive System; Female anatomy	26
R	Dec	3	Uterine/ovarian cycles; hormonal regulation and pregnancy	26
T	Dec	8	<b>EXAM # 3</b>	-