

BIOL 341-001  
HUMAN PHYSIOLOGY & ANATOMY  
FALL 2009

Your Instructor:

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Office Hours: Mon 1:30-3:00; Tues 10:00-11:30; Fri 1:00-2:15; or by appointment

Your Text:

*Human Anatomy & Physiology* by Marieb, eighth edition. If you have a copy of an earlier edition, that should be satisfactory. The majority of the material covered in the lecture section will be drawn directly from this text. Supplemental materials that some may find useful, but which are not required to successfully complete the course, can be purchased or ordered from the bookstore. These include several different study guides, A&P coloring books, and atlases. Also, the bookstore has stocked several copies of *A Visual Analogy Guide to Human Anatomy & Physiology*, which may be helpful. However, the surest way to pass this course is to **read the textbook** and **keep up with the material covered in the lectures**.

Because the human body has not changed a whole lot in the last few thousand years, most A&P texts will contain much of the same basic material. If you have a recent addition of a human A&P text, or separate anatomy and physiology texts, you may not feel obliged to purchase the Marieb text. This is your choice, but I will be referencing the Marieb book for this course.

Your textbook package should include some CD-ROMs. The Interactive Physiology CD-ROM is a fantastic study tool and is the primary reason I have adopted this textbook. You should use this software as much as possible. The PhysioEx CD-ROM will be used only in the laboratory course, as will the laboratory manual.

Your Grade/Outcomes Assessment:

Your grade in this course will be based on your ability to synthesize and recall information while taking a written examination. Much of this information will deal with the basic concepts of A&P, which involve the inter-working relationships between the anatomy (structure) and physiology (function) of the human body at the molecular, microscopic, and gross levels. Written examinations may (and usually will) consist of almost any question format, the majority of which will involve the use of a Scantron answer sheet. In other words, bring #2 pencils to every exam. With over 100 students in this class, essay exams are just not practical.

There will be four major exams given over the course of the semester. Each exam will be worth 17 % of your final grade for a total of 68%. In addition, there will be a series of weekly quizzes given on selected Mondays from 8:10-8:20 A.M. I would advise everyone to **be on time** on Mondays. As a matter of policy, **NO MAKEUP QUIZZES WILL BE GIVEN**, except in the case of excused absences due to university-sanctioned activities (such as trips for athletics). At least *ten* quizzes will be given, from which the *highest eight* grades will be averaged and counted as 15% of the final grade. The weekly quizzes are intended as a powerful incentive to keep up. This course covers so much material that those falling behind will undoubtedly find themselves in a very difficult position. The four major exams will not be considered cumulative per se, but the important concepts found in the early material will continue to appear throughout this semester and into the next.

The final exam will basically be the fifth major exam, encompassing the material covered in the final weeks of the semester and being worth 17% of your grade.

The outcome assessment of this course (i.e., your grade) can be summarized as:

Four major exams	@17 % each	--->	68%
Best eight quizzes			15%
Final exam			<u>17%</u>
			100%

Final letter grades will be assigned as follows:

A = 90-100	C = 70-79	F ≤ 59
B = 80-89	D = 60-69	

In addition, I reserve the right to assign “minus grades” for so-called “borderline” grades. For example, a grade of 79 may be assigned as a B- instead of a C based on my assessment of your overall contributions to the class, which may include such things as attendance, participation, or whether or not this course serves as your morning naptime.

I will make every effort to accommodate students with a disability documented through DSS.

#### Learning Objectives:

Your major learning objectives for this course are listed as follows:

1. Acquire a working knowledge of cells and cellular functions, focusing especially on membranes and mechanisms for transport of substances across them.
2. Master the basic concepts of cellular metabolism, and apply those concepts directly to cellular function, especially in various types of muscle cells.
3. Gain a basic understanding of bone physiology and how it influences calcium metabolism.
4. Master the basic principles of muscle physiology from whole muscle down to the molecular level.
5. Obtain a good working knowledge of the neuron, including the role of chemical transmitters, electrical potentials, and the generation and propagation of action potentials.
6. Understand the basic anatomy of the entire central nervous system, including how the different components interconnect and interact with each other.
7. Gain a thorough working knowledge of the autonomic nervous system, and begin to apply this knowledge to the various body systems controlled by it.

If you accomplish each of these, you should pass the course.

#### Classroom Expectations and Etiquette:

While I would hope that this information would be self-evident to most of you, I have learned over the past few years that some individuals need to be made aware of certain behaviors that are not acceptable in a university classroom.

1. All cell phones are to be turned off or set to vibrate before I begin to lecture. If a cell phone rings, I will cease the lecture and wait for you to turn off your phone or exit the room. DO NOT answer your phone and carry on conversation during class. Cell phones must be turned off and put away for the duration of all exam periods. If you are texting, you are not paying attention and therefore wasting the money somebody paid for you to be here.
2. Laptop computers brought to class may be used for note-taking purposes only. If you want to do your homework for other classes or surf the web, go somewhere else. If this becomes a problem, I will simply ban all laptops for the remainder of the course.

3. If you know ahead of time that you must leave class early, sit near the exit so as not to be a major distraction when you leave.

4. If you come to class late, make an effort to enter through the rear door and find a seat in the back of the room as soon as possible so as to minimize the distraction you are going to cause your fellow classmates.

5. On days when major exams are given, backpacks, briefcases, books, etc., WILL NOT be allowed in the seating area. In addition, I reserve the right to request that baseball caps be removed or worn in reverse. A ringing (or vibrating) cell phone inside a backpack is a major annoyance for anyone trying to concentrate on an exam. Unless you want me to dig around for your phone and answer it myself, make sure it is turned off.

#### Academic Misconduct:

Since some of you may not be certain what constitutes cheating at this university, I will point out the definition as found in your student handbook, Part IX, Section B:

“Academic misconduct includes all acts of dishonesty in any academically-related matter and any knowing or intentional help or attempt to help, or conspiracy to help, another student commit an act of academic dishonesty.”

If I have reason to believe cheating has occurred on an assignment, all students involved will receive a grade of “zero” for that assignment. If that assignment is a major exam, the mathematical result for most of you will be a final grade of “D” or below for the course. Since most students in this course are pursuing a career in health care, I also expect you to police yourselves with regards to cheating. Do you really want to work your way through nursing school with a student you know to be cheating? Would you want that person taking care of you or your family members? Be aware that in this course most of your classmates will not hesitate in reporting such problems to me.

#### Class Schedule

<u>Week</u>	<u>Topic(s)</u>	<u>Chapter</u>	<u>Noteworthy Events</u>
1	Homeostasis/ Cell Structure/Function	1 (pp. 1-12) 3	Welcome to your new life
2	Cell Structure/Function Membrane Transport	3 3	Quiz 1
3	Membrane Potentials Cell Growth/Reproduction	3, 11 (pp. 395-397) 3	Quiz 2 <b>Exam I (Ch. 1-3, 11) 9/25</b>
4	Gene Expression Enzymes Bioenergetics	3 2 (pp. 51-53) 2 (pp. 36-38; 55-56)	
5	Glycolysis Cellular Respiration Lipid/Protein Metabolism	24 (pp. 918-924) 24 (pp. 925-930) 24 (pp. 930-934)	Quiz 3
6	Primary Tissues Bone Physiology	4 6	<b>Exam II (Ch. 2, 3, 24) 10/12</b>

7	Bone Physiology Muscle Physiology Muscle Physiology	6 9 9	Quiz 4
8	Muscle Physiology Muscle Physiology Muscle Physiology	9 9 9	Quiz 5
9	Nervous Tissue Neurophysiology	11 11	<b>Exam III (Ch. 4, 6, 9) 11/2</b>
10	Neurophysiology Neurophysiology	11 11	Quiz 6 Veteran's Day 11/11
11	Central Nervous System Central Nervous System	12 12	Quiz 7 <b>Exam IV (Ch. 9, 11) 11/18</b>
12	Central Nervous System	12	Quiz 8, Thanksgiving
13	Peripheral Nervous System Autonomic Nervous System Autonomic Nervous System	13 14 14	Quiz 9
14	Sensation	12, 13	Quiz 10
15	<b>Final Exam</b>		<b>Dec. 14, 2:00 PM</b>

All quizzes are scheduled for Mondays.

Additional quizzes may be scheduled if agreed to by consensus. Exam dates may be moved at the discretion of the instructor.