



Human Anatomy and Physiology I (BSC 2085) Miami Dade College, Wolfson Campus

Instructor: Larry M. Frolich, Ph.D.
E-mail: lfrolich@mdc.edu
Office: Wolfson 1504
Office Hours: To be announced
Course Website: LarryFrolich.com

Description: The structure and function of the systems of the human body, emphasizing those aspects most pertinent to students in the nursing and allied health technology programs. 3 lecture hours. This class is designed to familiarize the student with the structures of the human body, the language used to describe it, and how the anatomy functions in a living person. The information presented is considered a fundamental base, as well as a language, that is universal to the biomedical sciences.

Prerequisites: Although not required, a course in Basic or Cellular Biology, as well as Introductory Chemistry, with a passing grade, are highly recommended before attempting Human Anatomy and Physiology. Students without a good familiarity of basic biology and chemistry may have difficulties succeeding in this course

Co-requisite: BSC-2085-Laboratory. Students must be enrolled in the Human Anatomy and Physiology I Laboratory during the same semester that they take the lecture component.

Required Text: Marieb & Hoehn, *Human Anatomy and Physiology*, Benjamin Cummings.

Highly Recommended: Kapit, W. (2002). *The Anatomy Coloring Book*. Benjamin Cummings.
Kapit, W. (2000) *The Physiology Coloring Book*. Benjamin Cummings.

Required Materials: We use colored pencils, pens or markers frequently for our notes—blue, red, yellow and green are essential.

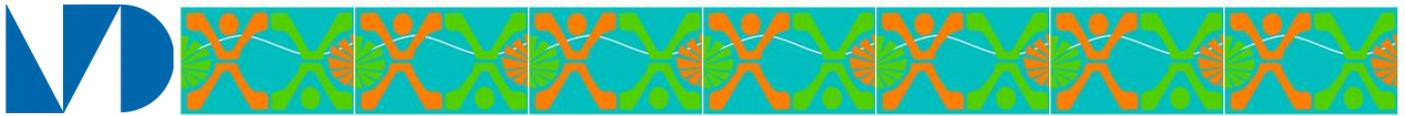
Anatomy and Physiology as a Language

In many ways, this course involves learning a new language. To learn a new language, it is essential to have direct experience with the objects or material being described—through lecture presentations, activities and lab—and to find ways to ingrain the words used to describe those objects. It is best to hear the terms, write them down, view and touch the structures, draw the structures, label them, write their definitions, say them out loud and then repeat it all over again. This can get to be a boring and repetitive process, but it is important to remember the power that comes from being able to describe the details of the human body, and how it works, with precision, and at a level that was previously not possible.

Keys to Success

Students often ask me what might be the best way to excel in this course. Every student is an individual with their own strengths and weaknesses and every year I learn about new ways to study and approach anatomy and physiology. But I do have a few tips that seem to be universally useful to all students:

- **PREPARATION:** Students who get an A in this class always come prepared to class and lab. It is a simple fact. They have read ahead and they are already familiar with the systems and parts of the body and the terms to describe them. They've seen the figures from the text and the PowerPoint presentations that apply to what we are covering that day and they have previewed that day's class activities.
- **TIME:** This course requires time outside of class in order to do well—at least 10 hours/week.
- **REPETITION:** Read it, hear it, see it, say it, DRAW IT (this seems to be key); then do it again.
- **STUDY GROUP:** Try to find someone to study with—it makes it all a lot more interesting.
- **ATTITUDE:** Students with a better attitude do better in this class.



Organization and Course Logistics

Website: LarryFrolich.com The website for this course serves as your content guide and source for class materials. Presentations for the entire semester are delivered on the course website, along with note-taking handouts and links to other websites. We will use classroom time to work on constructing full understanding of the material for every student who comes fully prepared and enthusiastically motivated—you must view the presentations before coming to class. In addition, learning objectives and all logistical information regarding schedules, readings, and grading are posted on the website. If you have a question, please consult the website and this syllabus first. Then, if you don't find the answer, post your question to our comment wall, send me a message or ask in class.

Three Parts: The semester is split into three parts, each treated as a mostly independent unit with a non-cumulative exam. The attached weekly schedule gives the themes for each part of the course, as well as weekly topics and text chapters that serve as a source of reference information. On the course website, you'll find the specific competencies that Human Anatomy and Physiology students are expected to gain for each topic.

Attendance: Students are expected to attend every class. All exams, quizzes and assignments must be completed on the designated day and time. Students arriving late will not be able to take the quiz or exam scheduled for that date. No makeup exams or quizzes are given.

Registration: Students must be registered in the course from the start of the semester in order to receive a grade in this course. You must also fill out an A and P Presentation Name Card during the first week of class to be registered with me—instructions for the Name Card will be given the first day of class. Please bring your Name Card to class for the first five class meetings.

Withdrawal: Students may withdraw until the mid-semester withdrawal date. After that date, if you continue in the class, I assume it is because you wish to receive the final letter grade that you earn.

Learning Resources

ACCESS Center: Room 1180, <http://www.mdc.edu/wolfson/student/access/default.asp>

I will gladly work together with the ACCESS center to insure that a particular disability is not a barrier to success in this course. From the ACCESS website: "The mission of ACCESS is to assist students to maximize their talents, skills, and abilities and recognize disability as an aspect of diversity that is unique to each individual. We are a Student Services Department, and yet we collaborate to the extent possible with all campus faculty and staff as well as the community to ensure equal access and to design more usable, inclusive and sustainable educational experiences and environments."

Science Resource Center: Room 2221

Tutoring help, anatomical models, slides and microscopes are all available here.

Computer Courtyards: Room 2201, <http://www.mdc.edu/wolfson/learningresources/Courtyard/>

You can always access the course internet site and all the linked resources through the high-speed internet-connected computers in the campus Computer Courtyard.

Wolfson Campus Library: Room 1216, <http://www.mdc.edu/wolfson/learningresources/library/>



Evaluation and Grading

Quizzes (100 points for total quiz average—10 points per quiz): Weekly quizzes are given to inspire you to keep on top of studying and as a gauge for how well you're doing in the class. They are given at the start of our first class meeting of the week and cover the material from the online presentations for that day's topics. If you are not doing well on the quizzes and find them difficult, then that is a sign that you need to change your approach to studying for Anatomy and Physiology. Each quiz is worth ten points and the quiz average then contributes 100 points (the equivalent of one lecture exam) to the semester total. Students may miss up to two quizzes and the average will be calculated over the total possible for the quizzes that they take.

Written Exams (100 points each for total of 300 points): Anatomy and Physiology is mostly a factual subject with objective exams used as the main evaluation tool. Each exam will be based on lecture material and associated chapters from the text. Each exam will be worth 100 points. Exams will be a combination of multiple choice, fill-in-the-blank, matching, and short answer concept questions. The exams are NOT cumulative and only test on the material from the most recent section of the course. Exams must be taken on the date and time indicated in the semester schedule. Students may not leave the classroom during the exam. No makeup exams will be given. Students who miss one exam and present written evidence of an emergency or urgent situation will be given consideration on an individual basis so that their emergency situation does not adversely affect their success in the class.

Compendium Notebooks (use to “pay down” exam points): You will have the option of “paying down” your exam grade for each section of the course by preparing a comprehensive compendium review notebook of all the material we have covered for that section of the class. The compendium notebook is your own personal “best” comprehensive study guide that you have the option of presenting to me before each exam. Most students find this is a very effective way to prepare for the exam. Not only is the compendium notebook a great way to learn Anatomy and Physiology, but it can help you to discover the unique ways in which you learn and study— many students go on to use this tool in their other classes. At the class meeting (or meetings) prior to exams, you will have a chance to present that notebook and I'll go over with you to insure that it is complete and correct. Detailed instructions for creating your compendium notebook can be found on the course website.

Extra Credit (10 points): During Part III of the semester, you will have a chance to earn a few extra credit points and contribute to the long-term quality of our A and P offerings by searching for and evaluating some Anatomy and Physiology related websites. To earn these extra credit points, you must first do a tutorial on how to analyze website quality, and then find up to five websites which you will post to our online forum. More details during the second part of the class.

Final Letter Grade:	Lecture Exams	300 points
	Quiz average	100 points
	TOTAL POSSIBLE	400 POINTS

Letter grades are assigned according the following point (and percentage) accumulations.

- A: More than 360 points (90%)
- B: More than 320 points (80%)
- C: More than 280 points (70%)
- D: More than 240 points (60%)
- F: Less than 240 points

(Use the grade tracker below to track of your points and percentage throughout the semester)



Dedication, Collegiality and Professionalism

From the outset, I assume that students who have advanced sufficiently in their academic professional goals to be taking this course are self-motivated and want to achieve at the highest level. I view my own role as one of a colleague who serves to orient and guide the student. In the classroom, where tight collaboration is a necessity, I strive to create an environment that promotes a strong sense of professional respect and expect students to do the same. While observing the norms of academic honesty, we seek a cooperative approach to learning where we all take advantage of each others' strengths and skills in a collegial way, much as one would hope to find in a well-managed workplace.

Anatomy and Physiology requires serious and time-intensive dedication. A minimum of ten hours preparation, study and revision outside of class is needed to pass, and perhaps more time to really excel. Besides viewing all the course materials before coming to class, plan on spending additional time previewing and reviewing your notes, the course website, the book other resources; and then creating your own compendium review notebook. I strongly encourage students to study together. Nonetheless, any plagiarism or violation of academic honesty in the preparation of class assignments, or during exams, will result in an instant "F" for that exam, and probably expulsion from the course for the semester.

Anatomy and Physiology is a stepping-stone, or rite of passage, towards being a high-quality professionals in the BioMedical Sciences. To this end, in this class, we support the college's—and society's—greatest aspirations of producing professionals who can communicate effectively, use quantitative analytical skills, solve problems using creative thinking and scientific reasoning, formulate strategies to locate and use information, demonstrate knowledge of diverse cultures, fulfill personal and civic responsibilities, think ethically, master emerging technologies, appreciate aesthetics and describe how natural systems function, including their human elements. (See College Learning Outcomes below)

Here's to the journey...

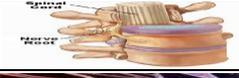
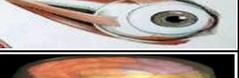
Grade Tracker

Use this table to keep an updated record of your grades throughout the semester.

EVALUATION TOOL	Points possible	My points	% Grade (My points/Points possible)
EXAM 1	100		
EXAM 2	100		
EXAM 3	100		
WEEKLY QUIZZES			
	10		
	10		
	10		
	10		
	10		
	10		
	10		
	10		
	10		
	10		
(Quizzes averaged over 100 points—can miss up to two quizzes)			
Total for Semester	400		



Human Anatomy and Physiology I: The “Outer Tube”
 Dates and details for each topic on course website: LarryFrolich.com

Part I. The Basic Body Plan: Embryology, Tissues and the Skin		
	Basic Body Plan and Embryology	Text Chapters: 1, 28
	Chemistry and Molecules of Life	Text Chapters: 2, 3
	Cells	Text Chapters: 2, 3, 4
	Tissues: Epithelial, Connective	Text Chapters: 3, 4
	Skeletal Tissues, Skin	Text Chapters: 5, 6
	EXAM ONE	All material from Part I
Part II. The Body Axis and Limbs: Movement—nerves, muscles and bones		
	Nervous System: Overall Organization	Text Chapters: 11, 12, 13, 14
	Neurons and Muscle	Text Chapters: 11, 9
	Mechanics of Movement, Joints	Text Chapters: 8, 7, 9
	Upper Limb	Text Chapters: 7, 8, 10, 13
	Lower Limb	Text Chapters: 7, 8, 10, 13
	EXAM TWO	All material from Part II
Part III. The Head: Feeding, Special Senses and Central Control		
	The Skull	Text Chapters: 7
	Throat	Text Chapters: 22, 10, 13, 14
	Special Senses	Text Chapters: 15
	Brain	Text Chapters: 12, 14, 11
	EXAM THREE	All material from Part III



The 10 Learning Outcomes

<http://www.mdc.edu/learningoutcomes/>

Through the academic disciplines and co-curricular activities, General Education provides multiple, varied, and intentional learning experiences to facilitate the acquisition of fundamental knowledge and skills and the development of attitudes that foster effective citizenship and life-long learning.

As graduates of Miami Dade College, students will be able to:

1. Communicate effectively using listening, speaking, reading, and writing skills.
2. Use quantitative analytical skills to evaluate and process numerical data.
3. Solve problems using critical and creative thinking and scientific reasoning.
4. Formulate strategies to locate, evaluate, and apply information.
5. Demonstrate knowledge of diverse cultures, including global and historical perspectives.
6. Create strategies that can be used to fulfill personal, civic, and social responsibilities.
7. Demonstrate knowledge of ethical thinking and its application to issues in society.
8. Use computer and emerging technologies effectively.
9. Demonstrate an appreciation for aesthetics and creative activities.
10. Describe how natural systems function and recognize the impact of humans on the environment.