

ES 207
Fundamentals of Human Form and Function

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Course Description

This course covers fundamental concepts in human *anatomy and physiology* with specific attention to preparation of students intending to major in exercise science or occupational therapy for future coursework. Basic anatomical terminology and concepts in physiology will be used to cover all regions and systems of the body. Emphasis will be placed on achieving an understanding of anatomical organization and the relation between organization and the physiological basis of human function. Clinical examples from each of the professions will be used to reinforce concepts.

Relationship of the Course to Curriculum Design

This course is designed to provide students with a basic preparation for entry into professional health care curricula (Physical Therapy, Exercise Science etc.). As part of training in these professional programs, students engage in intensive study of both gross human anatomy and human physiology. The considerable body of knowledge that each of those disciplines includes can be better appreciated and learned if the student has a basic preparation that includes fundamental concepts. This course will provide those concepts, enabling the student to begin intensive study with a conceptual knowledge of anatomy and physiology. This course will adopt a systems approach, rather than the regional approach taken by most upper-level gross anatomy courses.

Course Objectives

The primary goal of this course is to provide the foundation needed for students to succeed in their continuing study of gross human anatomy and physiology.

Upon completion of the course the student will be able to:

1. Accurately name anatomical structures
2. Describe fundamental structure and function of each of the body's systems
3. Define and briefly describe the regional divisions of the human body
4. Discuss the basic concepts of muscle physiology
5. Discuss basic concepts of neurophysiology
6. Discuss the organization of the central and peripheral nervous system
7. Discuss basic mechanisms of homeostasis
8. Discuss basic concepts of hormonal control of body function

Course Format

This is a web-based course. You will need to become comfortable using web-based applications, ensure you have a reliable internet connection, and work well independently. You must have access to a computer that meets or exceeds UB's minimum computer standard.

<http://ubit.buffalo.edu/standards/>

Lectures: There are no live lectures. You will watch video lectures for each unit. My role is primarily to identify the factual information you will need to succeed in your future coursework

ES207, Fall 2013

and career. It is then up to you to learn that material. You **MUST** take an active role in your learning.

Laboratories: Most of the laboratories will be virtual laboratories. The virtual laboratories will consist of assignments from one of two resources: 1. McGraw-Hill's PhILS (Physiology Interactive Laboratory Simulation) application or 2. McGraw-Hill's APR (Anatomy and Physiology Revealed) application. Both are accessible via your Connect account. These virtual labs will help you master the material (and will be 20% of your grade). You will be required to attend one face-to-face laboratory – the Anatomy Workshop. It is 5% of your grade. It is described in more detail below.

Office Hours

Dr. Wersinger and the teaching assistants will hold office hours. Details will be posted on UB Learns.

Evaluation Methods

1. Pretest	5%
2. Anatomy Workshop	5%
3. Connect/Virtual Laboratory Assignments	20%
4. Exams	35%
5. Cumulative Final Exam	34%
6. Course Evaluation**	1%

** Each student who submits a completed online evaluation as reported to the Course Coordinator by the SPHHP CoursEval Administrator will be awarded 1% toward his/her overall course average. CourseEval procedures protect the anonymity of student respondents – the Course Coordinator will receive a list of names of students who have submitted evaluations, but no faculty member receives evaluation reports (ratings and comments) before grades are submitted, and student names are not included on evaluation reports.

Pretest: During the first week of class, before you read the book or watch any video lectures, you must complete a pretest. The pretest is 20 multiple-choice questions that will assess your level of knowledge at the beginning of the course. Once you begin the pretest, you must complete it within 60 minutes. You must work alone on the pretest without your book or use of the web. The number of correct answers on the pretest does not affect your grade. In fact, the scores on the pretest will not be tabulated until after final grades are calculated. If you finish the pretest, your score will be 100%. If you do not finish the pretest before the due date, your score will be 0%. **THIS SHOULD BE AN EASY GRADE.** Please make certain you complete the pretest!

Anatomy Workshop: Although the online resources associated with the course are outstanding tools to help you understand human form and function, they do not recreate the full sensory experience of a human anatomy laboratory. To give you this valuable experience, you will need to attend one of our Anatomy Workshops. You need to attend one session. Due to the limited space in the laboratories, you will need to sign-up for a specific day and time. The sign-up sheets will be available at Exam I, II, and III.

ES207, Fall 2013

Virtual Laboratory Assignments: You will have virtual laboratory assignments throughout the semester. These virtual labs will be through PhILS or APR. You have ONE chance to do each homework assignment, so take your time and make sure you do it correctly. I will explain how to earn credit for completing the PhILS labs on UB Learns. No assignments will be accepted after the due date for any reason (including your technical problems). There are 25 assignments. Each counts equally toward your grade.

Exams: You must take four examinations in person at UB. The examinations will each be about 75 questions. The examinations will be on the following Fridays at 4:00 pm:

Exam 1: 21 February
Exam 2: 28 March
Exam 3: 18 April
Exam 4: 09 May

Your three highest exam scores will count toward your grade. I automatically drop your lowest exam score, no questions asked. Because I drop your lowest score, I offer no make-up exams. If you miss an exam for any reason, you receive a score of zero. My drop policy is in lieu of make-ups. (If I were to offer make-ups, I would count all your scores toward your grade.) The exams consist of two parts, each of which is 50% of your exam grade. Part I is identification of anatomical structures. Part II is multiple-choice questions focusing on physiology.

Cumulative Final: You must take a cumulative final examination in person at UB. The date and location of the final examination will be posted on your HUB account. The final exam will be a combination of multiple choice, fill-in-the-blank, matching, short answer, and label the diagram questions.

Grade Conversion Table: Final grades will be assigned according to the following table:

A	93.00 - 100.00
A-	90.00 - 92.99
B+	87.00 - 89.99
B	84.00 - 86.99
B-	80.00 - 83.99
C+	77.00 - 79.99
C	74.00 - 76.99
C-	70.00 - 73.99
D+	65.00 - 69.99
D	60.00 - 64.99
F	less than 60

UB Learns

The vast majority of this course will involve UB Learns. All announcements (including changes to the syllabus, assignments, etc.) will be posted on UB Learns. Links to video lectures, handouts and study guides will also be posted on UB Learns. I strongly urge you to get in the habit of checking UB Learns daily.

ES207, Fall 2013

Communication by Electronic Mail

Please make sure you use the sw39@buffalo.edu address for course-related correspondence. Please **ALWAYS place ES207 in the subject line**. If you do not, your e-mail will go to a junk e-mail folder. I look through that folder once every few weeks. Consequently, there will be a long delay in me reading and replying to your e-mail. The instructor will use UB Learns and e-mail if it is necessary to contact students with an urgent matter. Students are requested to check the e-mail address in the student roster on the website to insure that it is the one they routinely use. If students use an ISP (such as AOL) for e-mail and the roster shows their UB address, they should setup automatic forwarding in their UB address so that messages from the instructor will not be missed. Instructions for doing so are here: <http://ubit.buffalo.edu/ubmail/forwarding/index.php>. I encourage you to use e-mail freely to contact me.

Required Materials

You **MUST** have ALL of the required materials. You can purchase them at the bookstore or through this link: <http://shop.mcgraw-hill.com/mhshop/productDetails?isbn=0077837606>

Books:

1. Seeley's Essentials of Anatomy and Physiology, 8th Edition by VanPutte, Regan, and Russo (a hardcopy or the e-text is fine, whichever you prefer)
2. Workbook to Accompany Anatomy and Physiology Revealed 3.0 by Robert B. Broyles, Jr.

Web Resources:

1. McGraw-Hill's Connect
2. McGraw-Hill's PhILS (Physiology Interactive Laboratory Simulation)
3. McGraw-Hill's APR (Anatomy and Physiology Revealed, 3.0)

Accessibility Statement

Any student with a diagnosed disability (physical, learning, or psychosocial) that will make it difficult for him/her to carry out the course work as outlined, or requires accommodations such as recruiting note takers, readers, or extended time on exams and/or assignments, should contact Accessibility Resources, 25 Capen Hall, 645-2608. Accessibility Resources will provide students with information and review appropriate arrangements for reasonable accommodations. Qualified students should then contact the course coordinator as early as possible.

ES207, Fall 2013

Hints for Excelling in ES207

1. DO THE ASSIGNMENTS. I chose the assignments carefully. They are not “busy work.” They are to help you master the material. There are no shortcuts. You must set aside sufficient time to complete them. The assignments from Anatomy and Physiology Revealed (APR) are critical. Almost ½ your exam will be identifying structures directly from APR.
2. DO NOT GET BEHIND. If you stay on top of one class this year, this is it. We move fast, and later chapters assume you understand the earlier chapters. You will have a tough time catching up if you get behind.
3. GET HELP! I can’t emphasize this enough. If you don’t understand something, ask.
4. STUDY DAILY. You need to study differently for this class than many of your other courses. ***Make time in your daily schedule for this course. Blocking out an hour or two a day will go a long way towards your success.***
 - Reading the chapter does not count as studying. You must spend additional time studying.
 - You must actively try to remember the details of what you are reading as you are reading it.
 - Practice makes perfect. The new material is hard for everyone. You are all bright enough to master the material. The difference between an A and a C is almost always how much time a student chooses to invest in the course. There are no shortcuts. You need to practice and repeat the material or you will not remember it well enough to excel on the final examination.