

HUMAN ANATOMY AND PHYSIOLOGY
BIOL&241

Summer 2009

Class Hours: Lecture: MW 5:30 – 7:30PM Room AS1614
 Lab: MW 7:40 – 9:40PM Room AS1615

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 Office Hours: MW 5-5:30 & by appointment

Course Goal: An introductory anatomy and physiology course, designed to provide a basic understanding and working knowledge of the human body. To prepare students for college transfer, and/or nursing, physical therapy, respiratory therapy and other health science programs. To develop a strong foundation in human anatomy and physiology through the structure, function, interactions of the organs and the environment. To integrate the concepts of function and form and how these relate to homeostasis in the body. The background acquired in this course will prepare the student for BIOL&242 (Anatomy & Physiology II).

The course will *help* you to develop the following skills:

Self-discipline and responsibility	Group study and individual enhancement
Problem solving and interpretation	Verbal and written communication
Scheduling, organizing and prioritization of studying	<i>Critical thinking: you are responsible for your own learning</i>

Course Content:

Unit I: Cells	Tissues
Unit II: Skeletal System	Articulations
Unit III: Muscular System	
Unit IV: Nervous System	

Reading Materials:

Required:

Human Anatomy and Physiology Laboratory Manual, Main version –by Marieb, Benjamin Cummings, 8th edition.
Human Anatomy and Physiology, by Marieb & Hoehn, Benjamin Cummings, 7th edition.
OR any other Anatomy and Physiology text that has been ok'ed by the instructor.
Supplement to BIOL&241, by Josh Whorley, available in the copy center TBA.

May be useful:

A Guide to Anatomy and Physiology Labs, by Rust, Southwest Education Enterprises, 2nd edition.
An Introduction to Chemistry for Biology Students, by Sacheim, Benjamin Cummings, 5th edition.
Anatomy and Physiology Coloring Workbook: A complete study guide, by Marieb, Benjamin Cummings, 5th edition.
Human Anatomy and Physiology Study Cards, by Van Degraff and Rhers, W.C. Brown, 1st edition.
May not be available in bookstore.
ADAM interactive Anatomy Dissection Manual, by Sanner Greer, Prentice Hall, 1st edition.

Lectures: Will focus on the materials that require clarification and subject material that relates to clinical or health profession areas. The lectures will not cover all the material required in each study unit. You must also obtain information through the textbook, the lab manual, and individual studies. It is good practice to read the text/lab manual before the topic is discussed in class.

Laboratory: Laboratory exercises must be completed during the scheduled lab session. There will be open labs scheduled during the week (to be determined at the beginning of the quarter). During some of the open labs there will be a tutor to help with difficult concepts. Often instructors from BIOL&241 and BIOL&242 will drop by to help. This open lab is your opportunity to use this extra time for added study of the physiological and anatomical aspects presented. This is not a time to make up missed labs -- unless previous scheduling plans have been arranged.

Attendance: You should attend every class session. If you miss a class session, then it is your responsibility to obtain any lecture notes, assignments, or materials handed out in class. If you must miss class due to a prolonged illness or unexpected circumstance, please notify me as soon as possible to make arrangements.

Grading:

Grades will be tentatively assigned as follows:

4.0 = 95% +	3.4 = 89%	2.8 = 79%	2.2 = 70%	1.6 = 61%	1.0 = 52%
3.9 = 94%	3.3 = 88%	2.7 = 78%	2.1 = 69%	1.5 = 60%	0.9 = 50%
3.8 = 93%	3.2 = 85%	2.6 = 76%	2.0 = 68%	1.4 = 59%	0.8 = 48%
3.7 = 92%	3.1 = 83%	2.5 = 74%	1.9 = 66%	1.3 = 58%	0.7 = 46%
3.6 = 91%	3.0 = 81%	2.4 = 73%	1.8 = 64%	1.2 = 56%	0.6 = 44%
3.5 = 90%	2.9 = 80%	2.3 = 71%	1.7 = 62%	1.1 = 54%	0.5 = 42% etc.

Students who stop attending class and do not initiate one of the following alternatives will receive a grade of 0.0.

W - Withdrawal. The last day to withdraw without the instructor's signature is Jul 2. Until Aug 7 this action requires the instructor's signature; after that it is not possible to withdraw.

I - Incomplete. This grade is granted at the instructor's discretion. For students who perform at a passing level (60%) but did not meet the course requirements (ONE OR TWO exams) and wish to complete the course next quarter.

N - Audit. Requires official registration.

NC - No Credit. Student did not fulfill the course requirements. If the overall student performance is 60% or better, a student may request an NC from the instructor PRIOR to the final exam. This grade is granted at the instructor's discretion.

Dates of Note:

June 29 SUMMER QUARTER BEGINS.

Jul. 2 Last day to withdraw with 100% refund (less \$5).

Jul. 9 Last day to add/register; instructor permission required. Last day to change audit/credit status without instructor permission. Last day to withdraw without a "W" appearing on transcript and without instructor permission.

Jul. 14 Last day to withdraw with 50% refund. Instructor permission required.

Aug. 7 Last day to withdraw (no refund) or change audit/credit status; instructor permission required.

Aug. 21 SUMMER QUARTER ENDS.

Grades will be based upon:

Three lab/lecture exams: 100 points each	== 300 points
Four question sets: 25 points each	== 100 points
One lab/lecture final	== 150 points
TOTAL POINTS FOR THE COURSE	== 550 points

Exams: THERE ARE NO MAKE UP EXAMS. Any changes in the time and/or day of an exam or quiz will be announced in class well in advance of the exam date. It is your responsibility to find out what you missed, including test dates. No late or make up exams will be given except in an emergency – in which case you must contact me before the exam, and is limited to one per quarter. Documentation is required. I give no extra time for those arriving late.

The exams will cover the material presented in both lecture and lab. The exams are not comprehensive - but the material does build upon itself. Each exam will contain questions from the unit that was just covered. The exams will cover the information presented in lab and lecture, and largely consist of two types of questions: identification of anatomical parts and short answer/essay style questions. The final will include the last unit, and will integrate topics from the entire course.

Weekly questions: Throughout the quarter you will have questions to answer that focus on lecture material and readings. These questions may directly address additional articles that I ask you to read, or they may ask you to formulate answers using material from lecture, lab, and book chapters. In all cases, please write clear, **concise, specific** answers to the questions. Please also provide **mechanistic** answers: tell me how and why things happen as they do, based on the physical, chemical and cellular processes we learned about in class.

Reading: I expect you to read the laboratory manual exercise BEFORE coming to each lab session. It will also help you to have read the text prior to the lecture; you will find it easier to learn the information presented.

Ethics: The worst academic offenses in western culture are cheating and plagiarism. That means, for this class, 1) Don't turn in an assignment someone else wrote; 2) Don't let someone else do a lot of rewriting or proofreading for you, although it's fine to get feedback; and 3) **Don't copy phrases or sentences from book, articles or the Internet into your question responses.** Use your own words. The consequences for cheating and plagiarism can be as serious as failing the course, and in some places, being kicked out of school. In addition, it's just plain not going to help you become a better writer or increase your knowledge.

Tutoring: I will be available to help with questions during office hours and through appointments. There is also tutoring available free of charge during the open biology lab times. If you feel that you will need help, come see the instructor as soon as possible so that

assistance can be arranged. There is a computer program available in the student computer center for you to use to study on your own or in small groups.

Extra Credit: I may offer some. It will **always** come in the form of questions asked during lecture, so this is another reason to always attend.

Practice Questions & Review Sheets: I will assign practice questions from time to time. There are also lab exercise review sheets at the end of your lab manual. I will not grade these, so you are under no obligation to do them. However, you will probably find that you understand that material more completely if you do answer these questions.

Special Assistance: Please let the instructor know if there are any areas that you will need assistance. This includes physical access to the classroom or laboratory, ASL interpreters, or extra time to take an exam. If you are physically or learning challenged, please let the instructor know so that steps can be taken to make the learning environment as comfortable and successful as possible. If you need special arrangements in case the building must be evacuated, please make an appointment with the instructor as soon as possible.

I reserve the right to alter the schedule, assignments, grading procedures, etc., at any point in time during the class due to schedule conflicts, new/different assignments, new approaches, etc., based upon my judgment.

Additional Stuff:

I. Test re-grades.

If I make an addition mistake on your exam, please return it to me immediately for a re-assessment of the addition. If you are unsure about why you missed points on a question, or think you deserve more points, **consult the key**. If you are still unsure, explain in writing on a separate sheet of paper why you think you deserve additional points. Turn in this page and your original exam *no later than one week after the exam has been returned*. I will assess this within the next two weeks and return your exam with a changed grade or an explanation as to the grading protocol. My response may be written or oral.

II. Any Questions.

If you have any questions throughout the quarter, please call, email, arrange an appointment, or ask a question in class. This is YOUR learning experience!

Tentative Schedule
BIOL& 241: Summer, 2009

	Lecture Topics	Readings	Weekly Labs, activity #'s, and lab demonstrations	Date
Week 1	Intro; Cell Anatomy	Ch 3	Introduction, Lab Safety Lab 3.1-3.5 Microscope Lab 4.1-4.6 Cell Anatomy	M 6/29 M 6/29 M 6/29
	Cell Anatomy; Transport	Ch 3	Lab 5A activities 1, 3, 5 Cell Transport (as part of Cell Transport lab: dialysis demo, instead of activity 3, and Brownian motion demo)	W 7/1
Week 2	Epithelial Tissues	Ch 4	Lab 6A 6.1 Epithelial Tissues	M 7/6
	Connective Tissues	Ch 4	Lab 6A 6.2 Connective Tissues	W 7/8
Week 3	Integument	Ch 5	Lab 7.1-7.5 Integumentary	M 7/13
	Skeletal System	Ch 6	Lab 9.2-9.4 Skeleton Overview Exam I: Cells, Tissues, Integument	W 7/15
Week 4	Bones	Ch 6, 7	Lab 10.1-10.5 Axial Skeleton	M 7/20
	Bone remodelling	Ch 6, 7	Lab 11.1-11.6 Appendicular Skeleton	W 7/22
Week 5	Joints	Ch 8	Lab 12 (Fetal); Lab 13.1-13.6 Articulations Split femur demo	M 7/27
	Muscle Anatomy	Ch 9	Lab 14.1-14.3 Skeletal Muscle; Vernier Muscle Fatigue Lab Exam II: Skeletal System	W 7/29
Week 6	Muscle Physiology	Ch 9, 10	Lab 15.1-15.6 Muscle Anatomy	W 8/3
	Muscle Physiology	Ch 9, 10	Lab 15.1-15.6 Muscle Anatomy, continued	W 8/5
Week 7	Nerves	Ch 11	Lab 17.1-17.3 Nervous Tissue Histology Exam III: Muscles	M 8/10
	CNS Anatomy	Ch 12	Lab 19 Brain Anatomy; Brain Dissection	W 8/12
Week 8	CNS	Ch 12	Lab 21.1-21.5 Spinal Cord Spinal Cord Demo	M 8/17
	PNS & reflexes	Ch 13	Lab 22.1-22.7 Reflex Physiology FINAL Quarter Ends F 6/21	W 8/19