Introduction to Human Anatomy



Anatomy 001, lecture & lab, Sections 15720 and 15722 West Los Angeles College

Spring 2019, February 9 - June 1Saturdays, 8:00-11:10 AM and 11:20 AM - 2:30 PM **Room 212 MSA**



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Tentative Course Syllabus—Subject to Revision Revised 1/23/19

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Office Hours: Saturdays 2:30 - 3:00 by appointment, room 211 MSB

Course Description:

This course is an intensive study of the gross and microscopic structure of the human body including the four major types of tissue and their subgroups, and the following organ systems: integumentary, skeletal, muscular, circulatory, respiratory, digestive, urinary, reproductive, endocrine, nervous, and senses. Functions of the organ systems are included at the introductory level to prepare students for a course in Human Physiology. Laboratory assignments develop the skills of observation, investigation, identification, discovery and dissection.

The use of actual specimens, including cat dissection and observation of a human cadaver, is emphasized to assure that students learn the relative structure, functions, textures and variations in tissues not incorporated in models. Supplemental materials such as models, photographs, charts, videotapes, and digitized images are also provided. This course is required for students preparing for many Allied Health professions including, but not limited to, Nursing, Respiratory Therapy, Physical Therapy, Physical Education and Kinesiology Training, and Physician's Assistant and is a prerequisite for Human Physiology 3.

Prerequisites:

College Biology with a grade of "B" or better and English 101 with a grade of "B" or better

Recommended skills: basic biology

basic study and organizational skills

Course Objectives/Outcomes:

This course is designed to introduce students to basic human anatomy at both the gross and microscopic level. By reading the text, attending lectures, completing laboratory exercises, and preparing homework, students will develop the basic skills necessary to

- understand basic anatomical principles.
- be knowledgeable about the gross anatomical and microscopic structures that make up the human body.
- understand and discuss the relationships, both anatomical and functional, between different organs and systems of the human body.
- relate gross anatomical structures to cellular structures that comprise various organ systems.
- be proficient in communicating with colleagues and other health care professionals about the human body.
- In addition to these (my own) personal goals for the class, I expect that all successful students will fulfill the following institutional, departmental, and course-specific **Student Learning Objectives**:
 - 1. Students should demonstrate confidence in their understanding of biological concepts and the scientific method to evaluate and critique current media or a scientific report.
 - 2. Name the systems of the human body, their general functions, the major organs that make up these systems, and the general contribution each organ makes to the system, as assessed by successful completion of a multiple choice or matching examination.
 - 3. Identify microscopically and describe the structure and basic function of the tissue and cell types used to make up the major organs of the human body, as by successful completion of a multiple choice or matching examination and a practical examination to assess proficiency at using a microscope.

Required Course Materials:

Textbook: Marieb, Mallat, and Wilhelm *Human Anatomy*, 8th edition, 2017, including access to Mastering A&P and Brief Atlas of the Human Body (2/e), Pearson Benjamin Cummings, ISBN. 978-013-424381-8.

older editions of the textbook are also acceptable; access to Mastering A&P online resources is highly recommended and can be purchased separately from the Pearson website

Test forms: 6 small forms needed, either Scantron 882-E or AccuScan 25110; 2 large Scantron forms, Scantron 884-E

Other Materials (Optional):

Picture Book: David Macaulay, *The Way We Work*, 2008, Houghton Mifflin, ISBN 978-0-618-23378-6

Laboratory Manual: Human Anatomy Lab with Cat Dissection, 5th edition, Pearson Benjamin Cummings, ISBN 0-8053-3856-X

Human Anatomy Atlas

Anatomy Flash Cards (e.g., Netter's Anatomy Flash Cards, John Hansen, ICON Learning Systems)

Lab coat
Disposable gloves (vinyl or latex)
Multi-colored pen/pencils
Set of dissection tools (available at bookstore)

Online Course Support:

WLAC is now using *Canvas* to provide online course management and support. Students registered in the course can consult the instructions on how to access the course website by viewing the following: http://www.wlac.edu/online/canvas.asp

Date of Final Exam: June 1, 2019

Student Responsibilities:

Students (<u>not</u> instructors) are responsible for being aware of any rules governing grades and enrollment, including drop dates, add or withdrawal procedures, and credit policies. Much of this information can be obtained online from the WLAC website **Be especially aware of drop dates for this course. You are responsible for your enrollment status** and the information presented in the WLAC schedule of classes and catalog.

Attendance of every lecture and lab session is mandatory. Classes will start promptly at 8:00AM, typically with the day's quiz. There can be <u>no</u> provision made to make up missed sessions or quizzes.

Statement of Educational Philosophy:

Education is a cooperative process between instructor and student. The primary responsibility for learning rests with the student. My role is to aid you in every way that I can by combining conventional and innovative methods to facilitate learning. The fundamental resources in the course are the textbook and the anatomical specimens. My role is to explain, synthesize, and elaborate on the material presented in the text, to introduce relevant real world and clinical examples, to be available as an expert resource to answer specific questions, and to guide you through dissections.

In order to succeed in this course, you must be motivated and dedicated to working hard. This is an intensive course that presents a large amount of material. While the material in this anatomy course is generally not conceptually complex, it requires learning a great volume of factual material and consolidating this learning into active understanding. In addition it requires the acquisition of a new language, with many terms that will be foreign to most students. Like learning any language, learning anatomical nomenclature requires time, repetition, and a combination of passive and active learning.

It is your responsibility as a student to come to the lecture **prepared**. You should have read the assigned chapter **before** the lecture and to be ready to participate in class discussion. The content of this course will probably require you to re-read certain chapters in order to grasp the concepts covered.

Students are encouraged to ask questions. I welcome questions that demonstrate an interest in the subject beyond what is covered explicitly in the text. I will make every attempt to answer all student questions during lecture if they are relevant to the subject matter and are of general interest. I am also happy to answer questions of interest only to an individual student, but I will generally defer the discussion of such questions until after the lecture. I am also available during office hours, through e-mail and by appointment. I hope to make this the best, most fascinating, and most rewarding course you have ever taken!

Policy on cell phones, pagers, cameras, etc.:

All audible and text messaging devices must be turned off or muted during class. Interruption of class lectures will be dealt with by ejecting the student from the class for the remainder of that session.

Photography, whether video or still, is not allowed of any anatomy laboratory material. Inappropriate distribution of photographs can be an embarrassment and detrimental to the educational goals of the class and WLAC.

Class sessions may be videotaped by the instructor for academic purposes, including concerns regarding academic misconduct (cheating).

Honor code & code of Academic Conduct

Cheating will not be tolerated. Any student who is caught cheating will receive a failing grade for the course and may be subject to disciplinary action in accordance with WLAC rules on student misconduct. All work is expected to be the student's own, except where clearly attributed to another source using explicit and accepted forms of academic attribution. Violations of academic honesty policies will be aggressively prosecuted and maximum possible penalties will be sought **in addition to** failing the course.

Note that in cases in which cheating is suspected, the class may be videotaped, or additional faculty or administrative officials may be invited to attend class session. A consent form regarding these observations will be distributed at the first class session.

A detailed version of Standards of Student Conduct is published in the Academic Policies & Student Conduct--WLAC (pages 1-45). The WLAC Science Division has also adopted the following Policy on Student Conduct in Classroom:

- 1. Be honest and ethical; follow the rules described in the college's policy on academic honesty.
- 2. Arrive before the start of class; wait until the previous class has been dismissed before entering the classroom.
- 3. Whenever you arrive to class late, open the door *quietly*, enter *quietly*, and close the door *quietly* so as not to disturb the class in session. Then, take a seat near the door, on the side or at the back of the classroom. Never walk in front of the instructor.
- 4. Do not eat or drink beverages in the classroom.
- 5. No gum chewing.
- 6. Sharpen pencils before class starts. Do not sharpen pencils during lecture.
- 7. Listen carefully when directions and announcements are being given. You are responsible for all information announced whether or not you were absent, tardy, or not paying attention.
- 8. Turn off or mute cell phones before entering the classroom.
- 9. Do not answer cell phones during class.
- 10. Do not leave the classroom during the lecture. Wait until the class is dismissed.
- 11. No talking during lecture. Do not chat with your classmates at any time during lecture, including during the time your instructor is putting information on the chalkboard.
- 12. Raise your hand and wait for recognition by the instructor to ask a question during lecture.
- 13. During the class, do not interrupt the instructor with personal questions. Wait until the class has been dismissed.

Consequences of Academic Misconduct

Violators of these rules are subject to disciplinary action under Board Rule 9803.15 of the Los Angeles Community College District. Depending upon the seriousness of the conduct, the student disciplinary procedures may range from a warning to removal from the class with a referral to the Vice President of the college.

Dealing with Sexual Misconduct

Title IX (of the 1972 Education Amendments) protects students and staff alike from discrimination based on sex, including Sexual Harassment and Sexual Assault, which are forms of Sexual Misconduct. Under Title IX, all people in the educational environment must be treated equitably, regardless of sex, sexual orientation or expression, and/or transgender identity.

For more information: www.wlac.edu/Title-IX/Index.aspx

If you have experienced or learned of a possible violation of Title IX and/or would like to know about options, resources (including confidential services), the law, or District policy, please do not hesitate to contact a Title IX Coordinator

WLAC Title IX Coordinator: Glenn Schenk Phone (310) 287-4275; schenkga@wlac.edu

District (LACCD) Title IX Office: Office for Diversity, Equity and Inclusion (213) 891-2315 TitleIX@email.laccd.edu

Disabilities:

Special accommodations will be made whenever possible for students with disabilities. These arrangements must be handled through the appropriate WLAC office, and it is the student's responsibility to follow approved procedures in documenting and addressing disabilities. If the ADA (Americans with Disabilities Act) applies to you, please contact the Office of Disabled Student Programs and Services (DSP&S) as soon as possible to meet with a DSPS counselor. DSPS is located in the Heldman Learning Resources Center (HLRC), Room 119. The office is open Monday through Thursday, 8:00 AM to 6:00 PM and (9:00 AM to 3:00 PM on Fridays. Evening appointments can be made by special arrangement. The telephone number is 310-287-4450.

Attendance

More so than with many other courses, it is crucial that you do not miss any class sessions in Anatomy! Subject matter covered in the book and/or lectures will appear on quizzes and tests. Excessively tardy or absent students may be dropped from the class.

Grading: Your grade will be based on the following evaluations:

Daily Quizzes, 10 x 24 points each	240 points
Mid-term exam (written, lecture material)	100 points
Mid-term exam (laboratory practical)	50 points
Final exam (written, lecture material)	110 points
Final exam (laboratory practical)	100 points
Total	600 points

Grading scale:

Grade	% Correct	Points
A	90-100%	≥540
В	80-90%	480-539
C	70-80%	420-479
D	60-70%	360-419
F	<60%	< 360

Quizzes are given at the beginning of class, so please arrange to arrive on time. Quizzes typically will cover only the material from the preceding session's lectures. In contrast, the mid-term and final exams are cumulative—the mid-term will cover the first half of the course and the final exam will contain material from the entire course. Laboratory material will be tested only on the mid-term and final, not on the quizzes.

There can be no alternatives or make-ups for the quizzes (however, see next paragraph). In extreme circumstances alternative dates can be arranged for the mid-term or final exams.

Any such alternative arrangements must be made at least two weeks in advance, and the alternative date must be prior to the general class date for that exam, not after.

Please note that there are 12 scheduled quizzes. You will be allowed to skip or throw out two quizzes during the semester. You can use these extra quizzes to accommodate any unavoidable absences from the class. Only your 10 highest quiz scores will be counted.

Additional Recommendations to succeed in this course:

This is an intensive, demanding course that will move rapidly through all aspects of the human body. I hope that this course will be immensely rewarding for every student, but keep in mind that successful completion of the course will require both extensive memorization of the vocabulary necessary for an understanding of human anatomy as well as the development of a conceptual understanding of the relationships between different organ systems and how anatomical structures provide the basis for proper functioning of the human organism. Plan to spend 1-3 hours of studying outside of class for every hour of lecture; individual students may need more or less than this. **This is a commitment not to be taken lightly.**

All students should take 10 minutes to view the following video on Survival Tips: http://www.youtube.com/watch?v=1Ppm7S8HDkM&feature=related

Here are six suggestions to help you get the most out of this class:

- **Read the assigned chapters in the text <u>before</u> class.** Come to class prepared to assimilate new perspectives on the reading material and to ask questions about topics that remain unclear after the lecture. There will always be an opportunity to participate in class by asking or answering questions. Don't be afraid to take part in this give-and-take.
- Attend every lecture and take written notes. Make a point of flagging anything you do not understand so that these can be clarified by re-reading the text, by consulting with your classmates, or by discussion with the instructor.
- Study regularly and without distractions. Cramming is not nearly as effective a way to learn as is studying in smaller chunks and at regular intervals. One of the reasons the exams are cumulative is to encourage long-term learning rather than a cram-and-forget strategy.
- Study with a partner or in a group. Active learning, in which you generate statements, questions, and explanations, is much more effective than passive learning—listening or reading only. Besides, it's more fun.
- **Review your lecture notes**. If you find it useful, re-write them in summary form or on flash cards for later re-review.
- Ask questions. Make a note during your reading and in lecture of things you don't understand. Then research the answers until you understand them—first read more carefully in the text, then ask one of your classmates, search the Internet, or make an appointment to visit during my office hours to discuss concepts or items that you still do not grasp, or which you have a special interest in beyond the scope of the text.

Lecture & Lab Schedule

`Anatomy 001, Sections 18030 and 18032, Fall 2018 Chapter numbers refer to Marieb, Mallat & Wilhelm, *Human Anatomy*, 8th edition (2017),

Week	Date	Text Chapter	Topic	Quiz/Exam
1	February 9	1	The Human Body: An Orientation no lab persona	no quiz l questionnaire
		2	Cells: The Living Units class photo; class exercises in basic anatomical	terms
2	February 16		no classPresidents' Day holiday	
3	February 23	3	Embryology; Tissues 1 Harvard Cell Animation; Anatomy of Sex vide	Quiz 1
		4	Tissues 2 introduction to the microscope; mitosis; develo	pment models
4	March 2	5	Integumentary System microscope lab	Quiz 2
		6	Bones and Skeletal Tissues microscope lab	
5	March 9	7	Axial Skeleton skeletons and bone models	Quiz 3
		8	Appendicular Skeleton bones; introduction to pig dissection, abdomen	
6	March 16	9	Joints pig dissection, bones, joints, and muscles	Quiz 4
		10	Skeletal Muscle Tissue skeletal muscle class participation exercise	
7	March 23	11	Muscles pig dissection, thorax; plastinated cats; models	Quiz 5
		12	Nervous Tissue class dramatization, action potential/myelination	n
8	March 30		no classSpring Break	

9	April 6	13	Central Nervous System sheep brains, cat brains	Quiz 6
		14	Peripheral Somatic Nervous System pig dissection—neck; cervical & lumbosacral ple microscopy—ganglia & nerves	xuses
10	April 13	1-14	Mid-term examlecture & lab	
11	April 20	15	Autonomic Nervous System pig dissection—head	Quiz 7
		16	Special Senses optical illusions	
12	April 27	17	Endocrine System	Quiz 8
		18	Blood microscopy—blood smear; bone marrow	
13	May 4	19	Heart sheep heart dissection	Quiz 9
		20	Blood Vessels pig dissection—blood vessels; microscopy	
14	May 11	21	Lymphatic and Immune Systems pig dissection—spleen & lymph nodes; microsco	Quiz 10
		22	Respiratory System	
15	May 18	25	Reproductive System pig dissection—reproductive system, if any microscopy	Quiz 11
16	May 25	23	Digestive System pig dissection—abdomen	Quiz 12
		24	Urinary System pig dissection—kidneys; microscopy	
17	June 1		Final Examlecture & lab	