

Introduction to Human Anatomy - Anatomy 1

Los Angeles Mission College - Fall 2012
Lecture: M & W 9:05-10:30 AM – CMS 004
Lab: W 10:40 AM - 1:55 PM – CMS 102

Instructor: *Dr. Par Mohammadian*

Office Hours: M 10:30 am - 12:20 pm (Life Science Dept. CMS #221)

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Course description: Anatomy 1 is an intensive lecture and laboratory course that includes the study of cells, tissues, and organs of the human body. The lectures correspond closely with the laboratory experience providing the student various modalities to learn about the many organ systems: integumentary, skeletal, muscular, nervous, circulatory, respiratory, digestive, urinary, and reproductive. Use of the microscope and dissection of a cat are highlights of this fascinating course.

Prerequisite: Biology 3; **Advisory:** English 28 – College-level reading, writing and study skills

Articulation: CSUN Biology 211 and 212; CSULA Biology 200A + 200B (with completion of Physiology 1)

Student Learning Outcomes (SLOs): Upon completion of this course, the successful Anatomy 1 students will identify and name different structures of the human body by naming them on visual presentations.

Course Goals

1. To learn the language and fundamental concepts of basic human anatomy in order to be successful in future academic and/or professional endeavors.
2. To grow as a student of science, by integrating lectures, discussions, laboratories, home-study, and small-group study into a holistic approach to learning.
3. To work as a member of a laboratory team, taking responsibility for one's own success, but learning to adapt, share, and learn with others during laboratory meetings.

*Last day to drop without a W – September 7

*Last day to drop with W - November 16 **(Please confirm the dates with the Registrar's office)*

A new state policy in effect as of Summer 2012 limits students to 3 attempts per course. Receiving a grade or "W" for a course counts as an attempt, regardless of when the course was taken. Withdrawal by September 7, 2012 (avoiding a "W") will not count as an attempt.

Learning Objectives Upon completion of this course, the successful student should be able to:

1. Use anatomical terminology correctly in the laboratory and in the workplace.
2. Identify human bones on a simple radiograph (X-ray).
3. Identify different tissues on the compound light microscope, and describe an organ where that tissue can be found in the human body.
4. Describe the major features and functions of human skin.
5. Differentiate between compact and spongy bone both microscopically and grossly.
6. Identify and name the bones of the human body and their major features.
7. Distinguish, both microscopically and grossly, the differences between the three types of muscle, and describe their location in the human body.
8. Distinguish the different types of joints in the body and describe major joint disorders
9. Describe differences in structure and location of different muscle tissues.
10. Name and describe the action of major human muscles.
11. Draw the structure of a neuron and label its parts.
12. Name and describe the function of the major structures of the human brain.
13. Recite the twelve cranial nerves in numbered order (I-XII) and describe the role of each.
14. Describe the anatomical and functional differences between the dorsal and ventral roots of spinal nerves, and the dorsal and ventral horns of the grey matter of the spinal cord.
15. Describe the structure of an intervertebral disc.
16. Explain the anatomical and functional differences between the sympathetic and parasympathetic divisions of the autonomic nervous system.

17. Identify and name the structures of the human eye.
18. Identify and name the structures of the human ear.
19. Identify and name the glands of the endocrine system.
20. Describe the major similarities and differences in the structure of an artery and a vein.
21. Describe the flow of blood through the heart and identify all major vessels, chambers and valves.
22. Explain the purpose of the lymphatic system and identify the lymph vessels and nodes both histologically and anatomically.
23. Identify and name, histologically and anatomically, the major components of the respiratory system.
24. Identify and name, histologically and anatomically, the major components of the digestive system.
25. Identify and name, histologically and anatomically, the major components of the urinary system, and describe the differences between males and females.
26. Identify and name, histologically and anatomically, the major components of the reproductive systems of males and females.

Books

Required: Human Anatomy and Physiology, Elaine N. Marieb and Katja Hoehn, 9th Edition

Human Anatomy and Physiology Lab Manual, Cat Version, Marieb and Mitchell, 10th Edition, 2012

Lecture notes: Available on my website <http://drpar.pbwiki.com>

Evaluation and Grading

1. Quizzes (8x12=96 points)

A quiz will be administered at the start of lecture and if you are tardy, you will not be allowed to take the quiz. Each quiz will take approximately fifteen minutes and will emphasize material covered during previous class meetings. The quizzes are intended to stress the importance of staying up with the material! There will be a total of 9 quizzes worth 12 points each (one will be a pop quiz-not listed on the course outline). At the end of the semester the lowest quiz score will be dropped. **Quizzes cannot be made up.** Students should arrange all personal, family, and vacation plans accordingly.

2. Homework (24 points)

Assignments are given throughout the semester and you may be asked to complete them in the classroom or in the Anatomy tutoring lab/LRC.

3. Laboratory Review Sheets and Lab Participation (approximately 15x10 = approximately 150 points)

Students are required to complete and submit the Review Sheets in the back of the Lab Manual for all assigned laboratory exercises. Review Sheets must be returned on the same day. Late reports are not accepted. The Review Sheets for each of the 15 laboratory meetings will be worth 10 points each. **Do not underestimate the value of these points!** Every semester some students lose a whole grade because of absences, tardiness, failure to participate, or failure to hand-in lab sheets complete and on time. If you are tardy or leave early, you will not receive full points. A student, who misses three laboratory sessions or is tardy three times/leaves early, excused or unexcused, is subject to receiving a Failing Grade or may be dropped. Students are encouraged to work together to complete these review sheets, but simple copying is not suggested as a valuable way to review the material.

4. Objective Midterm Exams (3x130=390 points)

There will be 3 objective midterm exams as shown on the class schedule. **No make-up midterms will be given.** A student who has an excused absence from one midterm only will have the percentage earned on the next examination counted for that missed score. The excuse for the absence must be reported to the instructor within 24 hours and accompanied with proper documentations. **Students should arrange all personal, family, and vacation plans accordingly.** These occasions are not considered as excused absences.

5. Lab Practical Midterm Exams (2x70=140 points)

There will be 2 lab practical exams, which will involve the “hands-on” identification and understanding of material presented in the laboratory exercises.

6. Final Lab Practical Exam (60 points)

It will cover all material from all laboratory exercises throughout the semester. **No make-up Final Lab Practical Exam will be given.** Students should plan their schedule accordingly.

7. Final Objective Exam (140 points)

The final exam will be cumulative representing the entire course. **No make-up Final Exam will be given.** Students must plan their schedule accordingly.

<u>Evaluation</u>	<u>Number</u>	x	<u>Points</u>	=	<u>Total</u>	<u>Percentage</u>
Quizzes	8		12		96	9.6%
Homework	12		2		24	2.4%
Lab Review Sheets	15		10		150	15%
Midterm Exams	3		130		390	39%
Lab Midterm Exams	2		70		140	14%
Final Practical Exam	1		60		60	6%
Final Objective Exam	1		140		<u>140</u>	<u>14%</u>
					1000	100%

TENTATIVE GRADING SCALE (final point total may be subject to change)

<u>Point Total</u>	<u>Percentage</u>	<u>Letter Grade</u>
900-1000	100 - 90%	A
800-899	89 - 80%	B
700-799	79 - 70%	C
600-699	69 - 60%	D
599- lower	59 - lower	F

Do not fall behind! This is a fast-paced course that covers a lot of material in very few class meetings. It is important that you do the readings, participate actively in the lab, and study diligently at home. **Ask questions!** There is no such thing as a stupid question. The chances are that if you don't know what is going on, 80% of the class is sitting there as ignorant as you, waiting for someone to ask. We have all been there before. So speak up! **Work together!** It is phenomenal what two or more people can learn at a lab table working together compared to one lonely, lost soul trying to find a "fungiform papilla" on a tongue slide. Come to class prepared to help one another. **Read the assigned text before the lecture!** Anatomy is a subject that is learned by **repetition, repetition, repetition.....** Reading and becoming familiar with the topic and the vocabulary will allow the lectures to help make "sense" of the text book and start you on the process of sinking the material into your gray matter!

Plan to study at least 6 hours per week for this class (3 hours of class time x 2 = 6 hrs study time at home)! If you need assistance and want to use models, visit the Science Success Center (SSC) in the LRC, located on the 1st floor of the Library. Free tutoring will be available Mon-Th from 11AM-7PM. Enroll in a study group. Check out the schedule for workshops on <http://lamission.edu/learningcenter/ssc.aspx> / call (818)364-7628 / email: lamcssc@gmail.com.

Additional Materials

Each student should **purchase at least 12 ScanTron** Answer Sheets for the Quizzes, Midterms, and Final Exam.

Cheating

Cheating and plagiarism in any form will result in an automatic F and dismissal from the course.

Students with Disabilities:

Students with disabilities are encouraged to contact Disabled Student Programs & Services (DSPS) to find out what services and accommodations are available. In general, **recording of the lectures are not allowed** unless the student can provide a letter from the DSPS office indicating the need for recording the lectures.

Date	Lecture	Laboratory
Week 1		
M 8/27	Ch 1: Intro to Course; Anatomical Terminology (Ch 1: pp. 1-8 & 11-20)	
W 8/29	Ch 1: Medical Imaging; Organ Systems Overview	<i>Exercise 1: The Language of Anatomy; Organ Systems Overview</i> <i>Exercise 2 & Rat Dissection</i>
Week 2		
M 9/3	Labor Day Holiday	
W 9/5	Ch 1: Medical Imaging; Organ Systems Overview Ch 4: Study of Tissues - Histology	<i>Exercise 6: Classification of Tissues</i>
Week 3		
M 9/10	Quiz #1 (Ch 1) Ch 4: Study of Tissues - Histology	
W 9/12	Ch 5: Integumentary System Ch 6: Skeletal Tissue and Bone Overview	<i>Exercises 7: Integumentary System;</i> <i>Exercise 8: Membranes</i> <i>Exercise 9: Bone Classification: Overview</i>
Week 4		
M 9/17	Quiz #2 (Ch 4 & 5) Ch 6: Skeletal Tissue and Bone Overview	
W 9/19	Ch 7: The Axial Skeleton - Part 1	<i>Exercise 10: Axial Skeleton</i> <i>Exercise 12: Fetal Skeleton</i>
Week 5		
M 9/24	OBJECTIVE MIDTERM EXAM #1 (Ch 1, 4- 6)	
W 9/26	Ch 7: The Axial Skeleton - Part 1 Ch 7: The Appendicular Skeleton - Part 2	<i>Exercise 11: Appendicular Skeleton</i> <i>Exercise 13: Articulations and Body Movement</i>
Week 6		
M 10/1	Ch 7: The Appendicular Skeleton - Part 2 Ch 8: Joints	
W 10/3	Quiz #3 (Ch 7: Part 1 & 2) Ch 8: Joints Ch 9: Muscle Tissue and Muscle Overview (pp. 277-284)	LAB PRACTICAL EXAM #1 (Exercises 1, 2 & 6 – 13)
Week 7		
M 10/8	Ch 9: Muscle Tissue and Muscle Overview Ch 10: The Muscular System	
W 10/15	Ch 10: The Muscular System	<i>Exercise 15: Gross Anatomy of Muscular System</i> <i>Dissection #1 - Cat Muscles</i>
Week 8		
M 10/15	Quiz #4 (Ch 8-9) Ch 10: The Muscular System	
W 10/17	Ch 11: Nervous Tissue (pp.386-395) Ch 12: The Brain	<i>Exercise 15: Gross Anatomy of Muscular System (cont'd)</i> <i>Dissection #1 - Cat Muscles_(cont'd)</i> <i>Exercise 17: Histology of Nervous Tissue</i>

Week 9		
M 10/22	OBJECTIVE MIDTERM EXAM #2 (Ch 7-10)	
W 10/24	Ch 12: The Brain Ch 13: PNS (pp. 501-511)	<i>Exercise 17: Histology of Nervous Tissue (cont'd)</i> <i>Dissection #2 –Cat Brachial Plexus (Demo)</i> <i>Exercise 19: Anatomy - Brain & Cranial Nerves</i> <i>Exercise 21: Spinal Cord, Spinal Nerves, Autonomic</i>
Week 10		
M 10/29	Ch 12: The Brain Ch 13: PNS (pp. 483-487)	
W 10/31	Quiz #5 (Ch 11-12) Ch 15: Special Senses (pp. 544-553 & 565-575) Ch 18: Heart (pp. 658-671)	<i>Exercise 24: Special Senses: Vision (pp.364-370)</i> <i>Exercise 25: Special Senses: Hearing & Equilibrium (pp.384-387)</i> <i>Exercise 30: Anatomy of the Heart</i> <i>Dissection #3, 4- Cat Special Senses</i> <i>Dissection #5: Anatomy of the Heart</i>
Week 11		
M 11/5	Ch 15: Special Senses Ch 18: Heart	
W 11/7	Quiz #6 (13, 15) Ch 14: The autonomic Nervous System (pp. 524-533)	LAB PRACTICAL EXAM #2 (Exercises 15, 17, 19, 21, 24, 25)
Week 12		
M 11/12	Holiday	
W 11/14	Ch 17: Blood (pp. 631-645) Ch 19: Blood vessels (pp.692-701; 721-744)	<i>Exercise 32: Anatomy of Blood vessels</i> <i>Exercise 36: Anatomy of Respiratory System</i> <i>Dissection #6: Cat Respiratory</i> <i>Exercise 38: Anatomy of Digestive System</i> <i>Dissection #7: Cat Digestive</i>
Week 13		
M 11/19	OBJECTIVE MIDTERM EXAM #3 (Ch 11-15, 17-19)	
W 11/21	Ch 22: Respiratory System (pp. 801-816)	<i>Catch up</i>
Week 14		
M 11/26	Ch 23: Digestive System (pp. 849-869; 874-883; 887-892)	
W 11/28	Quiz #7 (22-23) Ch 25: Urinary System (pp. 954-963)	<i>Exercise 40: Anatomy of Urinary System</i> <i>Dissection #8: Cat Urinary</i>
Week 15		
M 12/3	Ch 25: Urinary System (pp. 954-963)	
W 12/5	Quiz #8 (25) Ch 27: Reproductive System (pp. 1018-1026; 1035-1043)	<i>Exercise 42: Anatomy of Reproductive System</i> <i>Dissection #9: Cat Reproductive</i>
Week 16		
M 12/10	No class	
W 12/12	FINAL Objective EXAMINATION (9:05-10:30 am)	FINAL Practical EXAMINATION (11:30 am -12:30 pm)

The course outline may be revised with prior notice.

Code of Honor and Integrity
Los Angeles Mission College
Department of Life Sciences

Students at Los Angeles Mission College, because they are members of an academic community dedicated to the achievement of excellence and the pursuit of honor, are expected to meet high standards of personal, ethical, and moral conduct. These standards require personal integrity and a commitment to honesty without compromise. Without the ability to trust in these principles, an academic community and a civil society cannot exist. Los Angeles Mission College students and faculty are as committed to the development of students with honesty and integrity as they are to the academic and professional success of its students.

The **Code of Honor and Integrity** is an undertaking of the students, first and foremost, both individually and collectively, that they will:

1. not give or receive dishonorable aid during exams, quizzes or assignments
2. do their share and take an active part in seeing to it that fellow students, as well as themselves, uphold the spirit and letter of the Code of Honor and Integrity.

Some examples of conduct that are regarded as being in violation of the Honor Code include:

- Copying from another's examination or quiz, or allowing another to copy from one's own papers
- Using any unpermitted source of information, human or other, during an exam, quiz or assignment that influences the grade; this includes the use of technological devices
- Any student-to-student collaboration that is unpermitted
- [Plagiarism](#) (plagiarism is defined as the use, without giving reasonable and appropriate credit to, or acknowledging the author or source, of another person's original work)
- Representing as one's own work as the work of another
- Giving or receiving aid on an academic assignment under circumstances in which a reasonable person should have known that such aid is not permitted

As a part of the effort to promote an environment of honesty and integrity during quizzes and examinations, the following guidelines will apply for any courses in the Department of Life Sciences:

1. Students will leave all books and all other non-essential items (e.g. paper, electronic devices) on the floor so that they are not useable nor block the sight line between professor and student. No electronic devices will be in reach.
2. Students will not communicate in any way that will dishonorably assist themselves or another student.
3. Students will leave the room during an exam only if permitted by the professor's policy. If permitted, only one student may leave the room at any time and be gone for only the average length of time needed for the stated purpose. Students will leave all purses, bags, books, phones, jackets, etc., in the classroom during the absence.
4. Students will promote the spirit and letter of the **Code of Honesty and Integrity** by dissuading fellow students from dishonest activity and, when such casual persuasion does not work, informing the professor of the possible dishonest activity, either anonymously, or otherwise.
5. Students will make every effort to avoid even the appearance of dishonesty or lack of integrity

Violation of this policy will not be tolerated and violators will be subject to severe penalties. The success of the **Code of Honor and Integrity** is based upon the collective desire of students, faculty and the community to live in an environment that embraces respect for that which is right – both in the college and in society as a whole.