

Los Angeles Mission College
Fall 2022 (8/29/2022 - 12/18/2022)

This is an interactive syllabus. Click on the underlined words and you will be connected to a website!

Introduction to Human Physiology – Physiology 1

Lecture: Section #12339 - Monday (zoom) & Wednesday 12:15-1:40 PM (CMS 005)

Lab: Section #12343: Wednesday 1:50 - 5:00 PM – in-person (CMS 104)

Instructor: *Dr. Par* Mohammadian, RPh, PhD

Office Hours (your time to meet with me to discuss any questions you may have):

M 11:30 AM -12:15 PM & W: 11:50 – 12:10 pm or by appointment in CMS 221.

Contact information: Preferred: mohampp@lamission.edu & (818-833-3424)

<https://ilearn.laccd.edu/login/canvas> includes additional LAMC resources available to you

Important dates: [Click on this link to see the important campus dates!](#)

Last date to enroll with a permission number: 09/11/2022; Last date to drop this class without a "W": 09/11/2022.

Last date to drop with a "W": 11/20/2022; Graduation Petition for [AS in Health Sciences](#): November 1, 2022.

Course Description: Physiology 1 examines the function of the following human systems: integumentary, skeletal, muscular, nervous, circulatory, respiratory, digestive, urinary, endocrine, lymphatic, and reproductive. Labs include many hands-on and computer-assisted applications. **Prerequisites:** Biology 3 or 5, Anatomy 1, Chemistry 51 or 65 or 101.

Articulation: You are encouraged to view articulation agreements at <http://www.assist.org>.

Honors program: <http://www.lamission.edu/Honors/Home.aspx>

Student Learning Outcomes:

- 1) Physiology 1 students will analyze a fundamental homeostatic process of the human body.
- 2) Physiology 1 Students will demonstrate an understanding of the integration of functions across many levels of physiological organization, from molecules to the entire human body.

Required Books:

- ✓ **Textbook:** Human Physiology, FOX (15th and 16th editions are both acceptable)
- ✓ **Lab:** No lab manual required - See Canvas



Evaluation and Grading

1. Exams (420+200=620 points):

There will be 4 exams each worth 105 points (total = 420) and a comprehensive final examination (200 points). There will be no make up with exception of documented emergency or official excused absences. Please notify me within 24 hours and present the required documents. The approval to make-up the exam is at instructor's discretion or the instructor may decide to use the percentage earned on the next examination counted for that missed score. Students will not receive any points for missed and unexcused exam(s). The exams are administered in the beginning of the class and if a student is tardy, unless due to an emergency, they will not be allowed to take the exam. Students should arrange all personal, family, and vacation plans accordingly. These occasions are not considered as excused absences.

2. Lab sessions and participation (280 points): Both the weekly lab reports and participation will be worth 280 points. For due dates see the Canvas shell. For any plagiarized lab/assignments you will not receive any points. Lab points may be modified based on your participation in the lab. Missing the lab will result in not receiving any points for the lab.

3. Presentation on a scientific topic (40 points):

You will work with at least two more team members (group of three students) on a presentation. Your group will present during the lab time (see the syllabus outline). The presentation will be submitted in one power point file under the "presentations" on Canvas. Each student will present one section of the topic and they will be evaluated and graded *individually*. However, since it is a group work, the topic will be researched and organized as a group. All members of the group are required to know about the entire presented topic. You will be evaluated based on criteria listed in rubrics on Canvas. The presentation will only be 30 min; each student will have exactly 10 minutes (you will be also evaluated on the time). At the end of the 30-min presentation, 30 minutes will be assigned to questions/discussions. If you are not on time or miss your presentation without a valid excuse, you will receive zero. The topic should be divided as follows: 1) *physiology/pathology (first present the structure and function of the system that you are assigned to in a healthy state and then discuss where –organ – what – function – the problems lie)*, 2) *symptoms (why they would show these symptoms – relate to the pathophysiology) & diagnosis (explain in relation to pathophysiology)*, and 3) *treatment (e.g. medications, procedures, and nutrition – do not list the names of the medications; discuss the types of medications – and why they help the diseased organ or function. Relate to the pathophysiology. Apply the same principles to the side effects of the medications. Make sure you discuss this with me before your presentation)*. You are required to use resources, such as textbook and peer-reviewed journals in [EBSCO](#). (When choosing your topic, present at least three related abstracts that are published in peer-reviewed journals. You have free access to full texts on [EBSCO](#) through LAMC library).

4. Quizzes/Participation (20 points): Your participation and interaction in the classes/labs are graded. The lecture quizzes are posted on Canvas. Check the due dates on Canvas.

5. Case studies (40 points): At the end of each chapter (exception chapter 1) in your lecture notes, you will find case studies that you are required to know, answer in detail, and submit on Canvas. See Canvas for due dates. *Include the page number(s) where you read the answer in the book.* Obviously, you are required to read and understand the chapter and reflect before answering the questions. **Please note that these cases maybe on your exams and also cases that will you face at your real work in the future as a healthcare professional.** See the case study rubric on Canvas.

<u>Evaluation</u>	<u>Number</u>	x	<u>Points</u>	=	<u>Total</u>	<u>Percentage</u>
Exams	4		105		420	42%
Labs & Participation	14		20		280	28%
Chapter Quizzes & participation			20		20	2%
Presentation	1		40		40	4%
Case studies			40		40	4%
Final Exam	1		200		<u>200</u>	<u>20%</u>
					1000	100%

Grading Scale: A: 90-100% (900-1000 points)

B: 80-89% (800-899 points)

C: 70-79% (700-799)

D: 60-69% (600-699 points)

F: <60% (<600 points)

Cheating:

Cheating and plagiarism in any form may result in an automatic F. Definition of cheating and plagiarism:

<https://academicprograms.calpoly.edu/content/academicpolicies/Cheating>

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 allowed *only for the student's use and not posting on various websites*. Please inform me the first week of the semester about your approved accommodation.

ATTENDANCE:

You are required to attend all meetings (class and labs). If you miss (or tardy or leave early) two or more class sessions/labs, you may be dropped from the class (policy in our catalogue: "Whenever absences "in hours" exceed the number of hours the class meets per week, the student may be excluded from class by the instructor.). In case of an emergency or any other pertinent issues that prevents you from attending the meetings/class/lab, please contact me right away. You are responsible for all information and instructions given in class/lab. Stop attending the class/lab does not mean that you are automatically dropped. It is your responsibility to officially withdraw from the class if you decide to do so.

General Comments and Suggestions

There is no easy way – you must study to succeed. If you are not prepared to study this semester, that is OK. Just take the class when you are ready to devote time to this course.

You must read the textbook in this class. You will not remember it all the first time through. That is what lecture is meant to be! (1) Read the text (2) Attend lecture (3) Study the text and lecture notes.



Do not fall behind! This is a fast-paced course that covers a lot of material with relatively few class meetings. Seek help before you begin to get in trouble.

Come to class prepared! This cannot be overemphasized. Casually reading the text before the lecture can help. Lectures are intended to assist you in organizing and understanding material that can be detailed and complex. Becoming familiar with the vocabulary and the concepts will make the lectures much more interesting and instructional. **Laboratory time is limited, and everyone must know what is to be accomplished in advance.**

Work together! Form a study group! Come to class/lab prepared. Tutoring and workshops are provided; check this website for hours and locations: <http://www.lamission.edu/learningcenter>.



- **Ask questions!** There is no such thing as a stupid question ☐. The chances are that if you do not understand something, 80% of the class is sitting there as ignorant as you and is waiting for someone to ask. We have all been confused at some point, so speak up!

Plan to study at least 6 hours per week for this class (3 hours of class time x 2 = 6 hrs effective study time at home)! And an additional 2-4 hours to prepare for the lab. A total of 6-8 hours minimum 😊. Experience has shown that your grade in this class correlates with the hours that you study at home.



Extra-credit assignments: Each student may accumulate up to 5 points in extra credit. The extra credit assignments will be related to the topics in this course (e.g., attending a related conference, seminar, or workshop) and will be announced throughout the semester.

Lecture/Laboratory Weekly Schedule

Physiology 1 – Fall 2022; Los Angeles Mission College; Instructor: Dr. Par Mohammadian

Date	Lecture (Lecture notes on Canvas)	Laboratory (see Canvas)	Assignments
<i>Lecture & Lab Quizzes & Chapter Case Studies: See Canvas for due dates!</i>			
Week 1 M 8/29	Introduction to Canvas Review of Syllabus Ch1: Introduction		<i>Lecture Case Studies (see the last pages of the lecture notes on Canvas): Due after each chapter is completed. The answers should be hand-written and submitted in the lab. Include the page number(s) where you read/extracted the answer in the book. Note: Ch 1 does not include a case study. Chapter quizzes: See Canvas</i>
W 8/31	Ch 2: Chemistry - review Ch 3: Cells - review	-Lab 1: Laboratory Safety & The Scientific Experimentation; Gallery Walk; Library database / Articles: Review & Analysis -Case Study: Stress Smoking Article – Review and Analysis -Choose your presentation topic/date	
Week 2 M 9/5	Labor Day HOLIDAY		<i>Unless specified, lab reports are due right after the experiments are completed.</i>
W 9/7	Ch 4: Enzymes - review Ch 6: Cell interactions - review	-Reading Apprenticeship -Lab 2: Cell Transport and Cell Permeability -Case Study: Water Can Kill Article – Review and Analysis <i>Submit at least three peer-reviewed articles related to your presentation topic. Counted toward your presentation grade.</i>	<i>You are expected to read the labs and answer the questions in advance. I will be checking your answers. If the questions are related to the experiments, predict! This will be counted toward your lab grade. Chapter quizzes: See Canvas</i>
Week 3 M 9/12	Ch 7: Nervous System		
W 9/14	Ch 7: Nervous System	-Search for peer-reviewed articles -Case Study: Going Under the Knife– Review and analysis -Lab 3: The Neurophysiology of Nerve Impulses	
Week 4 M 9/19	Exam #1 (Med. Terminology, Ch 1-4, 6)		<i>Wednesday Lab: Bring at least 3 peer-reviewed journal articles that are related to your presentation to the lab to discuss with me. Counted toward your presentation grade.</i>
W 9/21	Ch 8: CNS	-Lab 4: EEG -Case Study: Bad Fish: A Case on Nervous Tissue - Review and analysis	
Week 5			

Date	Lecture (Lecture notes on Canvas)	Laboratory (see Canvas)	Assignments
M 9/26	Ch 9: ANS		
W 9/28	Ch 10: Sensory	-Lab 5: Reflex Physiology	<i>Start working on your presentations & communicate with me!</i>
Week 6 M 10/3	Ch 10: Sensory		
W 10/5	Ch 11: Endocrinology	-Lab 6: Sensory Physiology	
Week 7 M 10/10	Exam #2 (Ch 7-10)		
W 10/12	Ch 11: Endocrinology	-Presentations 1, 2 -Lab 7: Endocrine Physiology - Case Study: My Brother Calls Me "Bug Eyes"	
Week 8 M 10/17	Ch 12: Muscle		
W 10/19	Ch 12: Muscle	-Lab 8: Skeletal Muscle Physiology & EMG	
Week 9 M 10/24	Ch 13: Blood, Heart, Circulation		
W 10/26	Ch 13: Blood, Heart, Circulation	-Presentations 3, 4 -Lab 9: Blood & Blood typing	
Week 10 M 10/31	Ch 14: CO, BF, BP		
W 11/2	Ch 14: CO, BF, BP	-Lab 10: Cardiac Cycle and ECG	
Week 11 M 11/7	Ch 16: Respiratory system		
W 11/9	Ch 16: Respiratory system	-Lab 11: Cardiovascular Physiology, Pulse, Heart Sounds and BP	
Week 12 M 11/14	Exam #3 (Ch 11-14)		
W 11/16	Ch 18: Digestive System	-Lab 12: Respiratory Physiology	
Week 13 M 11/21	Ch 18: Digestive System		
W 11/23	Ch 17: Urinary System	-Lab 13: Chemical and Physical Processes of Digestion	
Week 14 M 11/28	Ch 17: Urinary System		
W 11/30	Ch 20: Reproductive System	-Presentations 5, 6 -Lab 14: Renal Physiology and Urinalysis -Case Study: Max's Maximum – Review and analysis	
Week 15	Exam #4 (Ch 16-18)		

Date	Lecture (Lecture notes on Canvas)	Laboratory (see Canvas)	Assignments
M 12/5			
W 12/7	Ch 20: Reproductive System	-Presentation 7, 8, 9, 10 -Review for the final exam -SLO assessment	
Week 16 M 12/12	Final Exam (cumulative): At 12:30 pm		

“MANAGEMENT OF STRESS AND MENTAL HEALTH: As a student, not only do you have the pressure of succeeding in school, you may also be contending with work, financial issues, relationships, managing time effectively, getting enough sleep, etc. The staff and faculty of Los Angeles Mission College are here to provide support that will help you to be successful in your academic pursuits. You can learn more about the broad range of confidential student services offered on campus, including counseling and mental health services, by either visiting the Student Health Center (SHC), which is located next to the business office/administrative services, checking out the SHC webpage at: <https://www.lamission.edu/healthcenter/> or calling: 818 362-6182. I also encourage you to enter the **National Suicide Prevention Lifeline number (1-800-273-8255)** into your cell phone in case you or someone you know is in distress and needs someone with whom to talk.

Code of Honor and Integrity
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:

By enrolling in this course, you commit to integrity in all aspects of your work, whether quiz, exam or other assignment. Unless your instructor explicitly states otherwise, the work you submit should be your own and convey what you yourself have actually learned. This also means that you agree to follow the Standards of Student Conduct from the 2021-22 college catalog (pages 178-180) and will not engage in: copying another’s work; allowing someone else’s work to be submitted as if it was your own; using resources the instructor does not allow during assessments; submitting material without properly citing sources; or self-plagiarism, including submitting work completed for a previous attempt or another course. Evidence of breaking this commitment will result in serious consequences and formal documentation of the incident. If you are unsure if an act constitutes plagiarism or any other violation of academic integrity, be sure to ask your instructor or librarian for clarification.