Physiology I
Introduction to Human Physiology
Los Angeles Mission College – spring 2015
Instructor: *Dr. Ali Ebneshahidi*
Lecture: W 7:00PM - 9:00PM (CMS 105); S 11:20AM - 12:15PM (CMS 4)
Laboratory: S 8:00AM - 11:10AM (CMS 104), 12:40PM - 3:50PM (CMS 104)
Office Hours: S 3:50PM - 5:45PM (CMS 104)
E-mail: ebnesha@lamission.edu Life Science Web Address: www.lamission.edu/lifesciences

Last Day to Drop without a "W"- 2/22 (internet)
Last Day to Drop with a "W"- 5/10 (internet)

Articulation: Physiology 1 is articulated with CSUN Biology 281 & 282; CSULA Biology 200A/B

Prerequisites: Biology 3, and Anatomy 1, Chemistry 51 or 65 or 101, and English 28 or ESL 8

Student Learning Outcome:

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.

Physiology 1 is an intensive lecture and laboratory course that focuses on a variety of physiological topics including homeostasis, membrane transport, and the function of muscle, nervous, circulatory, respiratory, digestive, endocrine, and reproductive systems. Standard laboratories and computer-assisted laboratories enhance the study of this interesting subject matter.

COURSE OBJECTIVES

1. To learn the fundamental concepts of human physiology for advancement to certificate programs allied health programs and bachelor degree programs at the university level.
2. To understand basic laboratory aspects of human body function working individually and in small groups, as will be expected in future course work and/or professional endeavors.

BOOKS
Required: Human Anatomy and Physiology, Elaine N. Marieb and Katja Hoehn
Human Physiology Lab Manual, Custom Version for Mission College
Physiology Lecture Notes Online, Ebneshahidi

EVALUATION AND GRADING
Quizzes (8 X 20 = 160)

A total of 8 quizzes will be administered during the semester. Each quiz will start at the beginning of class and will take approximately fifteen minutes. Quizzes will emphasize all reading assignments and material covered in previous class meetings. The quizzes are intended to stress the importance of reading the assigned material in the text before coming into the lecture and staying up with the material as the semester progresses. Each quiz will be worth 20 points. *Quizzes cannot be made up.*

Laboratory Exercises (approximately 14 X 10 = 140 points)
Students are required to participate, and complete the Review Exercises in the Laboratory Manual and return them at the start of class on the following laboratory period. Each week of the Laboratory Exercise Assignment(s) will be worth 10 points. Incomplete and late Review Exercises will be marked down. Do not underestimate the significance of these points on the final course grade. A student who is absent for more than two laboratories is subject to receiving a failing grade in the course. The number of review sheets may change due to circumstances that may arise during the semester but the total points still remains the same.

Research Paper (30 points)

Students will be required to research and write a paper on a topic related to a *human disease* of interest to him/her. The paper is to be a minimum of five pages double-spaced and typed. The objectives and guidelines will be discussed in class. Students will also be required to give a brief summary of their paper to the class at the end of the semester through an oral presentation. Deadlines will be:

Saturday 3/14	Topic Selection Submitted in Writing
Wednesday 4/29	Three Different Sources (Articles or Text Chapters) for the Paper
Week 15 & 16	Oral Presentations of Student Paper Topics to the Class (about 10 minutes each)

Midterm Examinations (2 X 120 = 240 points)

There will be 2 midterm examinations scheduled on March 07 and April 15. Examinations will cover material presented in the textbook reading assignments, the lectures, and each of the laboratories. *No make-up examinations will be given.* A student who has an excused absence from one midterm examination will have the percentage earned on the next exam counted for that missed score.

Final Examination (150 points)

The Final Examination will be given on Wednesday, June 03, from 8:00PM - 10:00PM. It will include material from throughout the course, although it will focus on the last five weeks. *No make-up Final Exam will be given.* Students should arrange all personal, family, and vacation plans accordingly.

The total number of points:

Evaluation	Number	X	Points	=	Total
Quizzes	8		20		160
Lab Reviews	14		10		140
Term Paper	1		30		30
Midterms	2		120		240
Final Exam	1		150		150
					720

*Total points for the course may change depending on circumstances during the semester.

Tentative Grading Scale

Percentage	Letter Grade
100 - 90	A
89 - 80	B
79 - 70	C
69 - 60	D
59 - lower	F

OFFICE HOURS AND GETTING HELP

I will remain after class and lab to answer questions and offer individual assistance. Do not be shy. I am here to help you learn the material and it is a joy for me to help students learn physiology. Do not leave any questions you may have unanswered.

GENERAL COMMENTS AND SUGGESTIONS

- Read the textbook prior to attending the lecture!!!!!!!!! You will not remember it all the first time through. That is why I am here, to be your cruise director and guide! That is what lecture is meant to be! (1) Read text (2) attend lecture (3) study the text and lecture notes. I cannot learn the material for you. But I can sure help make sense of it all!!!

- Come to class prepared! This cannot be overemphasized. It is essential for you to read the textbook prior to lectures and the laboratories prior to the labs. Lectures are intended to assist you in organizing and understanding material, which can be detailed and complex. Becoming familiar with the vocabulary and the concepts will make the lectures much more interesting and instructional. Reading the laboratories prior to entering the lab is a must! Laboratory time is limited and everyone must know what is to be accomplished.

- Do not fall behind! This is a fast-paced course that covers a lot of material. Seek help before you begin to get in trouble. I am here to help you learn.

- Work together! This is not a correspondence course. We get together twice each week and in the laboratory so that classmates and lab partners can assist one another in learning physiology. Come to class prepared to learn and seek the assistance of others during labs. Read all labs prior to attendance!

- Ask questions! Students should not view their role as passive. Asking questions is actively encouraged.

ADDITIONAL MATERIALS

Each student should purchase ScanTron Answer Sheets for the Midterms, and Final Exam.

Items Suggested to Include in the Term Paper

- Symptoms
- Diagnosis
- Epidemiology (numbers, groups, etc. affected)
- Etiology (underlying physiological or biological mechanism)
- Prognosis (likely outcome for the patient)
- Treatment
- Any other information pertinent to the disease

Three Attempt Limit

State policy limits students to three attempts per course.
Receiving a grade or a "W" for a course counts as an attempt, regardless of when the course was taken.
Withdrawal by the deadline to avoid a "W" will not count as an attempt.

Lecture/*Laboratory* Schedule*
Physiology 1 – Spring 2015 – Dr. Ebneshahidi
Los Angeles Mission College

DATE	Lecture/*Laboratory*	Reading/*Lab Exercise*	
Week 1			
W 2/11	Course Introduction - Homeostasis, Plasma Membrane, and cell transport	1: 1-11; 2: 23-56 3: 61-81	
S 2/14	Holiday		
Week 2			
W 2/18	Muscle Contraction and Metabolism	3: 61-81 all 9: 276-311	
	Muscle Tissue and Action of Skeletal Muscle	9: 275-311	
S 2/21	Nervous System, Cells and Membrane Potentials	11: 386-423	
	The Synapse, Neurotransmitters, and Integration	11: Cont'd	Quiz #1
Lab	*Scientific Method, Scientific Notation, Metrics,*	*preface of lab MANUAL (xiv-xx)*	
	Cell Transport and Permeability.	*PhysioEx: Lab 14*	
	Skeletal Muscle Physiology	*PhysioEx: Lab 15*	
	Skeletal Muscle Physiology	*BIOPAC: EMG1 – Electromyography 1*	
Week 3			
W 2/25	Reflex Physiology	13: 513-520	
S 2/28	Physiology of Autonomic Nervous System	14: 524-539	Quiz #2
Lab	*Neurophysiology of Nerve Impulses*	*PhysioEx: Lab 16*	
Week 4			
W 3/04	Vision		
S 3/07	Midterm Exam # 1	15: 549-565	
Lab	*Human Reflex Physiology*	*Lab 4*	
Week 5			
W 3/11	Hearing and Equilibrium	15: 575-584	Quiz # 3
S 3/14	Composition and Functions of Blood	17: 631-646	(Paper Topic)
Lab	*General Sensation*	*Lab 5*	
	Visual Tests and Experiments	*Lab 6 - Vision & Hearing Tests*	
Week 6			
W 3/18	Blood: Homeostatic Mechanisms and Diagnostics	17: 646-654	Quiz #4
S 3/21	Heart Anatomy and Physiology I	18: all	
Lab	*Blood Analysis*	*PhysioEx: Lab 24*	
	Serological testing	*physioEx: Lab 25*	
Week 7			
W 3/25	Heart Physiology II	18: Cont'd	
S 3/28	Physiology of Circulation I	19: 693-703	Quiz #5
Lab	*Human Cardiovascular physiology - Pressure & Pulse*	*Lab 10*	
	Conduction system of the Heart and EKG	*BIOPAC: ECG1 – Electrocardiography 1*	

Week 8			
W 4/01	physiology of Circulation II	19:703-720,	Quiz #6
S 4/04	Spring Break		
Week 9			
W 4/08	Spring Break		
S 4/11	Physiology of Respiration I	22:816-828	
Lab	*Cardiovascular dynamics*	*PhysioEx: Lab 18*	
	Cardiovascular physiology	*PhysioEx: Lab 19*	
Week 10			
W 4/15	Midterm Exam #2		
S 4/18	Physiology of respiration II	22: 828-841	
Lab	*Respiratory system Mechanics*	*PhysioEx: Lab 20*	
	Pulmonary Function 1	*BIOPAC: Pulmonary Function 1*	
Week 11			
W 4/22	Physiology of Digestion	23: all	
S 4/25	Physiology of Digestion	23: Cont'd	
Lab	*Chemical and Physical Process of Digestion*	*PhysioEx: Lab 21*	
Week 12			
W 4/29	Physiology of Urinary System I	25: all	(Paper Sources due)
S 5/02	Physiology of Urinary System I	25: Cont'd	
	Urinalysis	*Lab 14*	
Week 13			
W 5/06	Physiology of Urinary System II	25: Cont'd	Quiz #7
S 5/09	Fluid, Electrolyte, and Acid-Base Balance	26: all	
Lab	*Renal System Physiology*	*PhysioEx: Lab 22*	
	Acid-Base Balance	*PhysioEx: Lab 23*	
Week 14			
W 5/13	The Endocrine System: Hormonal Control	16: all	
S 5/16	Reproductive Physiology	27: 1026-1035	
Lab	*Endocrine System Physiology*	*PhysioEx: Lab 17*	
Week 15			
W 5/20	Reproductive Physiology	27: 1043-1058, 28:1065-1089	Quiz #8
S 5/23	Immune System: Mechanisms of B and T Cell Response	21: all	(Paper Due)
Lab	*Oral Presentations of Student Papers to the Class*		
Week 16			
W 5/27	Non-instructional day		
S 5/30	Immune System: Mechanisms of B and T Cell Response	21: Cont'd	(Paper Due)
Lab	*Oral Presentations of Student Papers to the Class*		

Week 17 W 6/03/15 8:00PM - 10:00PM Final Examination

* Tentative

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.

SPECIAL ACCOMMODATIONS

If you require special accommodations for a disability, religious holiday, or any other reason please inform your instructor(s) within the first week of the course and we will accommodate you if at all possible. For accommodations due to disability, you must consult with the Disabled Students Programs and Services Office after which we will abide by their recommendations.

COLLEGE RESOURCES FOR LAMC STUDENTS

Admissions and Records: Students can register for classes, request transcripts, file petitions for graduation, and drop classes at this office. For more information call 818-833-3322 or visit: http://www.lamission.edu/admissions/

Assessment Center: Offers student assessments in English, English-as-a-Second-Language (ESL) and Mathematics. Please contact the Assessment Center at (818) 364-7613 for more information or visit http://www.lamission.edu/assessment/

Bookstore: For hours of operation, book availability, buybacks, and other information call 818-364-7767 or 7768 or visit http://eagleslanding.lamission.edu/default.asp

Counseling Department: For appointments and information call 818-364-7655 or visit http://www.lamission.edu/counseling/

Disabled Students Programs and Services (DSP&S): For appointments, eligibility and information call 818-364-7732 or visit http://www.lamission.edu/dsps/

Extended Opportunity Programs and Services (EOP&S): For appointments, eligibility and information call 818-364-7645 or visit http://www.lamission.edu/eops/

Library: For information on hours, resources, workshops, and other services contact 818-364-7106 or visit http://www.lamission.edu/library/

STEM Office: For information on free tutoring, resources and academic counseling for STEM (Science, Technology, Engineering, and Technology) students visit: http://www.lamission.edu/stem

Tutoring Services in Learning Center: Laboratories for Learning, Writing, Math & Science. Walk-in and appointment services offered. Call 818-364-7754 or visit www.lamission.edu/learningcenter/