

**Biological Sciences 48 (5 units)**  
**Human Physiology, Section 94757**  
**Spring 2011, Mission College**  
**Instructor: Kelly Neary**

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Office Hours: Tues & Thurs 2:30-3:30; Fri 9:55-10:55 in SCI-130

**Meeting times:** Tues & Thurs 9:20 am – 10:45 am in SCI-140 AND  
Tues & Thurs 10:55 am – 2:05 pm in SCI-220

### **Course Description**

Biological Sciences 48 is a detailed lecture and laboratory study of the physiological mechanisms underlying body function in preparation for careers in health care, including nursing and physical therapy.

### **Student Learning Outcomes**

1. Define homeostasis and explain how homeostasis is essential for living systems to exist.
2. Describe the major functions of the plasma membrane and describe the passive and active transport mechanisms that enable substances to cross the plasma membrane.
3. Describe the metabolic pathways involved with glucose, fat, and protein metabolism and summarize the energy yield of glycolysis and cellular respiration
4. Explain the functioning of neurons including resting membrane potentials, graded potentials, and action potentials.
5. Explain the key steps involved in the stimulation and contraction of skeletal muscle fibers; compare this to the similar processes in cardiac and smooth muscle.
6. Delineate the role of the cardiovascular system in the transport of gases, metabolites, hormones, and salts and water to various body organs, and be able to evaluate data obtained from the body relevant to these functions.
7. Chemically classify the major hormones in the body and describe their functions.

### **Required Materials**

Fox, Human Physiology, 11<sup>th</sup> edition (2009), McGraw-Hill

4 scantron forms (#882-E) and a sharpened #2 pencil

Goggles/Safety glasses

### **Attendance policy:**

You must attend the first meeting in order to ensure your enrollment in the course. On-time, regular attendance in lecture and lab is required. Roll will be taken during all class meetings. If your accumulated unexcused hours of absence exceed ten percent of the total number of hours the class meets during the semester, you may be dropped.

### **Points to be earned:**

Exams: Exams will cover both lecture and laboratory content and will consist of multiple choice, short answer and data analysis questions. You will need to purchase and bring your own scantron forms (#882-E, the green form) to each exam. These exams are not comprehensive. Four exams are scheduled: 3 midterms and a final exam. See the attached schedule for dates.

Final Exam: The fourth exam is the final exam. The final exam will be taken on **Thursday, May 26<sup>th</sup>, from 9:20-11:20 am**. All students are required to take the final exam.

Make-up exam policy: Exams must be taken at the scheduled time. The only exception is if you have a VALID reason for missing an exam, which is accepted by the instructor. In that case, you will be given an opportunity to make up the exam at the instructor's convenience. This can only be done ONCE during the semester, NO EXCEPTIONS. Please note that the exam questions may be different from the original exam and that there is no option for extra credit on make-up exams.

Reasons that WILL be accepted: illness accompanied by a doctor's note; death in the family accompanied by proper documentation. It is the student's responsibility to notify the instructor no later than the day of the exam if unable to make the exam date, or zero points will be awarded.

Quizzes: Eight quizzes will be given throughout the semester. You will take these quizzes online through the Angel course website. The chart below indicates by when you must complete the quiz and what chapters will be covered on that quiz. You will be quizzed on lecture material covered since the last exam or quiz. You will have 45 minutes to complete each quiz, which is open book and note; you cannot work with anyone else and plagiarism rules will be strictly enforced. You only have one attempt at taking the quiz and after 45 minutes your answers will automatically be submitted, so do not attempt the quiz until you are prepared and have a 45 minute block of time to complete it. Your six highest grades will be counted toward your final grade.

Quiz #	Date due (by 9 AM)	Ch. Incl.	Quiz #	Date due (by 9 AM)	Ch. Incl.
1	2/8/11	1,2	5	4/7/11	13
2	2/15/11	3,4	6	4/21/11	14,15
3	3/3/11	7,8	7	5/10/11	18
4	3/15/11	9,10	8	5/17/11	17,11

Make-up quiz policy: Quizzes must be taken at the scheduled time and cannot be made up. If one or two quizzes are missed, those 0's will be dropped (remember: only the six highest scores count toward your grade). If more than two quizzes are missed, then any 0's beyond the first two will be counted toward your final grade.

Pre-lab assignments: Twenty one pre-lab assignments will be collected during the semester. These assignments can be found on the course website; you must complete the assignments prior to the lab that they are due. All assignments are due at the beginning of lab, no exceptions (be on time!). Your highest 18 scores will count toward your final grade. Assignments cannot be made up; the first three assignments that are missed will be dropped (remember: only 18/21 scores count). NOTE: lab attendance is required, not recommended!

Lab write-up: You will do one lab write-up during the semester, which is due two weeks after the lab for which you are completing the write-up. A sign-up sheet will be distributed during the first week of class. You will find a handout with specific directions on the Angel course website.

Lab etiquettes points: Subjective laboratory etiquette points are earned during each lab session. These are intended to award students who demonstrate excellent laboratory behavior. Examples of how to EARN etiquette points: attend lab on time and remain until you are excused, bring the required lab manual and/or handouts, participate in all lab activities, clean up after yourself when lab activities are completed, and keep breaks (e.g. bathroom) and socializing to a minimum.

### **Course Policy on Cheating:**

Cheating and plagiarism are not tolerated on any class assignment, quiz or exam. Students found cheating will receive an "F" on the exam/quiz/practical/activity. You may also be referred to the Vice President of Student Services. Cheating is the act of obtaining or attempting to obtain credit for academic work through the use of dishonest, deceptive or fraudulent means. Examples of cheating include copying from someone else's exam or quiz, consulting with others during exams or quizzes, or using materials like dictionaries or

notes during exams or quizzes. If two students are involved, both will be penalized since it is impossible prove who copied from whom. Please review the principles of academic honesty, which are defined in the Student Handbook and Schedule of Classes.

**Mission College Policy on Students Behaving Badly:**

It is my responsibility to ensure that all students enjoy a supportive, respectful learning environment. I have a zero-tolerance policy toward any speech or behavior that disrupts the learning environment or prevents any student from achieving their educational goals. This includes, but is not limited to, disruptive behavior in the classroom such as speaking over the instructor, interrupting other students, monopolizing the instructor’s attention such that other students cannot be served, disrespectful, demeaning, or discriminatory remarks of any kind, and any form of coercive behavior toward the instructor or other students. **Any student who engages in such speech or behavior will be told to leave the class for the day, and if the behavior occurs a second time the student will be referred to the Vice President of Mission College for disciplinary action.**

**Grade computation:**

	Points:
Exams (4x200)	800
Quizzes (6x40)	240
Pre-lab Assignments (18x10)	180
Lab write-up	80
Lab etiquette	<u>100</u>
Total	1400

**Letter grades are assigned as follows:**

A =	100 - 90%	(1400 - 1260 total points)
B =	89 - 80%	(1259 - 1120 total points)
C =	79 - 70%	(1119 - 980 total points)
D =	69 - 60%	(979 - 840 total points)
F =	Below 60%	(below 839 total points)

**Additional information:**

1. Turn off cell phone ringers and pagers when coming to class. Points may be deducted from your course grade if your cell phone or pager interrupts the class.
2. No extra time will be given to students who arrive to exams late. Be on time!
3. While not likely, any of the scheduled events may be changed. Adequate notice will be given to the students in the event that this should happen.
4. Observe all safety policies as outlined in your lab manual or covered in class. Use common sense and dress appropriately for a science course with a laboratory portion.
5. No children are allowed in class, and no visitors are allowed without the instructor’s permission.
6. Any student who feels s/he may need an accommodation based on the impact of a disability should contact me privately to discuss your specific needs. Please contact DISC (Disability Instructional Support Center) located in S2-201 (408-855-5085 or 408-727-9243 TTY or disc@wvm.edu) to coordinate reasonable accommodations for students with verifiable documentation.
7. Emergency procedures can be found in the orange colored flip chart posted in your classrooms. Each classroom is also equipped with a phone that any student or faculty member can use to call for help during an emergency. Emergency numbers can be called via speed-dial buttons programmed on the phone.
8. Evacuation plan: In the event of an evacuation, the emergency assembly area for this classroom is Parking Lot C. When directed to evacuate the classroom, be sure to take all or your belongings when you leave and remain with your class in the assembly area until you receive further directions from me or another responsible official (college administrator, police, fire, etc.). In case of emergency, CALL 911.
9. Additional emergency information
  - Student health services: 408-855-5140 (5140 if dialing from campus phone)
  - Safety escort: 408-855-5435 (5435 if dialing from campus phone)
  - Nearest campus phone: in the classroom
  - Nearest fire alarm: first floor, next to building entrance door; second floor by emergency exit in 220

Nearest fire extinguisher: first floor across from lecture hall; second floor between 220&221

Nearest first aid kit: in the lab, next to the eye wash station

10. If you have a complaint or someone has shared information with you as a student or employee that is unlawful discrimination or sexual harassment, contact the Director of Human Resources at West Valley-Mission Community College District, Human Resources Department, 408-741-2060. If the Director of Human Resources is not available, contact the President of the college at 408-855-5123.
11. Mission College is a smoke free campus. Please observe and adhere to the no smoking rules.
12. Important dates for enrollment are listed below. It is the student's responsibility to keep these dates in mind. **Under NO circumstances will the instructor be dropping students after the withdrawal deadline.**

Last day to Add a course

Friday, February 11

Last day to Drop without a grade

Monday, February 21

Last day to Drop with a "W" (withdraw):

Friday, April 22

13. Important phone numbers:

Counseling

408-855-5030

EOPS

408-855-5055

Financial Aid

408-855-5065

Academic Skills Department, Tutorial Center

408-855-5371

Health Services

408-855-5140

14. **Instructor website.** <http://missioncollege.org/depts/biology/neary/index.htm>

Materials there include:

Greensheet and schedule in case you lose your copy

Biolinks page with links to helpful website and cool animations

Contact information in case you lose your greensheet

Links to various student services pages

15. **Angel website.** <http://wvmccd.angellearning.com/frames.aspx>

Materials there include:

PowerPoint handouts: to follow along in lecture and use as study guides

Pre-lab assignments: print these assignments and bring them to lab completed

Lab activities and post-lab questions: these handouts will replace a traditional lab manual. It is your responsibility to print these procedures prior to coming to lab. Additionally, each lab has a list of post-lab questions to help you further understand the procedures that you completed. While you will not be given points for completing these questions, it would be wise to do so as they will be study aides.