



Course Title: Human Physiology (BIOL 206)
CRN: 20232
Credits: 4

Instructor: Dr. Tom Morrell
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Office Hours:
Monday: 8:30 - 9:00 am
Tuesday: 4:45 - 6:15 pm
Wednesday: 8:30 - 9:00 am
Thursday: 4:45 - 6:15 pm

If for some reason you not see me during my scheduled office hours, please call or stop by, or email me to arrange a meeting. I have an open door policy and my office is always open, so feel free to stop by anytime.

Class days, Time, Room:
Lecture: Tuesday/Thursday 1:30 - 2:25 pm, Rm. 2737
Lab: Tuesday/Thursday 2:35 - 5:45 pm , Rm. 2737

Class Description

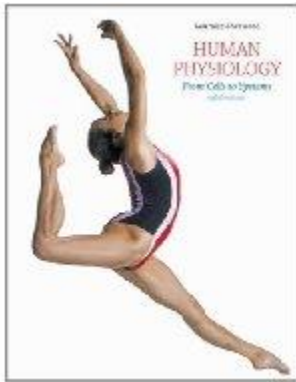
This is an **intensive** lecture and laboratory course designed to introduce the function of the human body from the cellular through the organ system levels of organization. Emphasis will be on integration of the body systems and interrelationships for maintaining homeostasis. The practical applications of the basic concepts are presented. Prerequisites include MATH 090 and CHEM 100 and BIOL 204 with grades of "C" or better, or a current California LVN or RN license.

Required Text Book

Sherwood, L. 2013. Human Physiology: From Cells to Systems, 8th Ed. Brooks/Cole Cengage Learning. Belmont, CA

ISBN: 13:978-1-111-57743-8

ISBN: 10: 1-111-57743-9



Attendance Policy

Attendance is required. You are responsible for all material presented during lecture and lab sessions. If for some reason you can't attend a lecture, quiz or an exam, it is your responsibility to approach me as soon as possible to determine if you have missed something important, and whether you can make it up. In order to make up missed opportunities you must **provide a signed medical or legal excuse** to document your absence. Students must realize that some labs, "in-class lab assignments," and particularly lab practical exams **CANNOT** be made up (regardless of the activity that resulted in the absence, or whether it's an excused absence). Some labs and lab practical exams require numerous hours to prepare and/or require cooperative student participation. Thus, attendance is mandatory at all labs. **All research indicates that there is a strong positive correlation between class attendance and good grades (i.e., those who attend class get better grades than those who skip class).**

Class attendance and tardy policy follows regulations set forth in the IVC catalog. Additionally, the IVC catalog states "disruption of a class can result in disciplinary action." I consider coming into class tardy - a disruption. **Thus, if I have started my lecture - you can not enter the class.** Wait for the class to take the next break and then enter. This includes being tardy following any announced breaks during class or lab. Again, do not enter the class if lecture has already started. Wait outside of class until the class takes a break. Please note that personal issues, such as family obligations, family situations, border slowdowns, babysitters, railroad crossings, job interviews, car problems, taking family members to appointments, and work schedules are not acceptable excuses for an absence or a tardy. Additionally, leaving class or lab before it has been officially dismissed will be regarded as as an unexcused absence. Should you miss both components of a given lecture during a day you will be recorded as absent (even if you attend the lab). If you acquire 4 unexcused absences you will be dropped from the class.

In order to participate in lab you must read and submit the lab safety form. To access this form click on "Lab Safety Form" in the left column. Safety glasses are required for some labs. If you do not bring your safety glasses to lab you will not be able to participate in lab.

Cell Phones

If I see you checking your cell phone for ANY reason, or if your cell phone rings, vibrates, buzzes, flashes or blinks during lecture or during lab (even if it is in your backpack, pocket, or purse!) I will ask you to leave the class for that day and you will be recorded as absent. Rest assured, I will provide you plenty of breaks that enable you to address all of your cell phone and social networking needs. **You can provide your children's day care, and/or family health care providers the number of the IVC front office, and the front office can contact you in this class in the event of an emergency.**

Recording my lecture is okay if you use a recorder. You can not use your cell phone or an Ipad (or similar device) to record my lectures.

Honor Policy

- **Plagiarism** is to take and present as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to correctly 'cite a source', you must ask for help.
- **Cheating** is defined as fraud, deceit, or dishonesty in an academic assignment or using or attempting to use materials, or assisting others in using materials, or assisting others in using materials, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment ;(c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment, (e) use of a commercial term paper service

Course Requirements and Instructional Methods

Your course grade will be based on 5 lecture/lab exams, lab and lecture quizzes (some unannounced), lab and out of class assignments, and discretionary course participation points. There will be approximately 8 - 10 lab and homework assignments, and 5 - 10 quizzes (10-20 points each approximately).

- Total = 750 points (approximate)

Course Grading Based on Course Objectives

Grades will be assigned according to the following scale:

>90% = A
80 - 89.9% = B
70 - 79.9% = C
60 - 69.9% = D
<59.9% = F

I do not accept late homework without a signed legal or medical excuse.

It is the responsibility of the student to fill out the necessary paperwork if he/she no longer attends the class. In order for a student to "officially" drop the course he/she must fill out the proper paperwork (This can be accomplished on-line). If this is not done a semester grade of "F" will be assigned.

Special Needs and Accommodations

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Program and Services (DSP&S) office as soon as possible (DSP&S, Room 2177, Health Sciences Building (760 355-6312)).

If you have emergency medical information to share with me, or if you need special arrangements in the event the building must be evacuated, please let me know during the first week of class.

Course Objectives

1. The student will be able to describe homeostasis and the mechanisms to maintain homeostasis.
2. The student will be able to discuss the chemical aspect of the human body.
3. The student will be able to describe cell structure and function.
4. The student will be able to discuss control of enzyme activity and bioenergetics.
5. The student will list nervous system divisions and components and describe their basic functions.
6. The student will be able to discuss the special senses and their nervous control.
7. The student will be able to discuss the function of the endocrine system and major regulation hormones, especially the hormones of the anterior pituitary.
8. The student will be able to discuss muscle function and understand the similarities and differences between different muscle types.
9. The student will be able to discuss the regulation and functions of the cardiovascular system.
10. The student will be able to describe the mechanism of immunity.

11. The student will be able to describe the functions of the respiratory system and the environmental effects.
12. The student will be able to describe the kidney function and urine formation.
13. The student will be able to distinguish between physical and chemical digestion and describe the functions of the digestive tract and accessory digestive organs.
14. The student will be able to describe the male and female reproductive physiology and the female cyclic changes.

Student Learning Outcomes:

1. Conduct and interpret an electromyogram performed on another individual
2. Conduct and interpret an electroencephalogram performed on another individual
3. Conduct and interpret an electrocardiogram performed on another individual
4. Display critical thought related to evaluating early disease detection by conducting a urinalysis evaluation.

Rules of Professional Conduct in This Class: Health care professionals are expected to conduct themselves professionally. If health care professionals engage in unethical or unprofessional conduct, they can receive discipline ranging from being fired to losing their license. The following rules of professional conduct are not exclusive. Think about the policy that drives these rules and what other behavior not explicitly mentioned falls within the rules. Unprofessional behavior that is disruptive to the learning environment may result in removal from the class.

1. No rudeness.

Think about what you say before you say it. Treat everyone the way you would like to be treated. Do not behave as though you are entitled to anything. Be respectful of other peoples sex, cultures, and beliefs. Do not swear.

2. Be deferential to those in authority.

Think before you speak.

3. Walk into class aware that you make an impression, as you will when you are a health care professional , the moment you walk into the room.

4. Unless otherwise instructed, put your cell phone away before class begins.

Why? Several reasons. Successful health care professionals have exemplary social skills, including the ability to establish rapport with patients and co-workers. If you are focused on your phone instead of the person to whom you are speaking, you cannot establish rapport. Further, good manners require that when a patient, co-worker, boss, or professor speaks to you, you devote your full attention to the speaker.

5. Everyone present in class deserves your respect and consideration. You will distract others if you enter the room after class has begun or leave the room after class has begun (Hence my tardy policy) . It is rude to rustle belongings while another student or the professor is speaking. Be prepared for class when its starts.

6. Others can hear you when you talk to your neighbor.

It distracts them. It distracts me. Do not ask your neighbor about something you did not hear during lecture. Raise your hand and ask me. Passing notes is also distracting. Don't do it.

7. Do not eat.

You may drink water or chew gum discretely. Do not blow bubbles or pop your gum. You can not eat in the classroom during breaks.

8. You impress others at all times.

Appear engaged, even if you are not. No slouching, **open yawning**, eye rolling, resting your head on the table, or display any other behavior that is disrespectful to your classmates or to the professor. You can not sleep during class - you will be asked to leave if you rest your head on the desk or sleep during class.

9. Take responsibility for your work.

Do not blame others. Welcome criticism, try not to be defensive, and understand that if you do not correct your errors now, you will have to correct them when the stakes are much higher, like when you are working.

10. If you realize you've been rude, apologize. Avoid the conditional apology, which is "I am sorry *if* I offended you." A conditional apology is arguably worse than no apology.

Tentative Schedule

WK	DAY	DATE	LECTURE	MATERIALS NEEDED
1	Tues.	1-21	Orientation	Nothing Needed
	Thur.	1-23	Cha. 1 Intro to Physiology	Nothing Needed
2	Tues.	1-28	Appendix A: Chemical Principles	Nothing Needed
	Thur.	1-30	Cha. 2 Cell Physiology	Interactive Physiology
3	Tues.	2-4	Cha 2 & Cha. 3 Plasma Membrane & Membrane Potential	Microscopes, clean slides, H ₂ O water eye droppers, and cover slips. 100 ml physiologic solution in 3 beakers. Thistle tube Osmosis Experiment: 5% sodium chloride solution, distilled water. (8) 500 ml beakers, dialysis tubing and thread, Disposable water droppers (rubber bands not needed).
	Thur.	2-6	Mitosis & Meiosis	Review
4	Tues.	2-11	EXAM 1	
	Thur.	2-13	Cha. 4 Neurons	Interactive Physiology CD

5	Tues.	2-18	Cha. 5 Central Nervous System	BIOPAC (Brainwaves)
	Thur.	2-20	Cha. 5 CNS & Cha. 6 Peripheral NS	Sensory stimuli: rubber hammers, tuning forks, pen lights, two-point touch discrimination pins, 25 q-tips, color blind books, eye model, tuning forks, 3 600 ml beakers, ice, hot plate, eye chart, 6 reaction time rulers, 6 field of vision forehead evaluators
6	Tues.	2-25	Cha. 6 & Cha. 7 Autonomic NS	Sensory stimuli: rubber hammers, tuning forks, pen lights, two-point touch discrimination pins, 30 q-tips, color blind books, eye model, tuning forks, 3 600 ml beakers, ice, hot plate, eye chart, 6 reaction time rulers, 6 field of vision forehead evaluators
	Thur.	2-27	Cha. 8 Muscle Physiology	Review
7	Tues.	3-4	Exam 2	
	Thur.	3-6	Cha. 9 Cardiac Physiology	BIOPAC (ECG)
8	Tues.	3-11	Cha. 10 Blood Vessels & BP	Sphygmomanometers, Stethoscopes
	Thur.	3-13	Cha. 11 Blood	Blood typing kits
WK		DATE	LECTURE	MATERIALS NEEDED
9	Tues.	3-18	Cha. 12 Immunity	Blood Typing Kits - Review
	Thur.	3-20	Exam 3	
10	Tues.	3-25	Cha. 12 Immunity	Nothing needed
	Thur.	3-27	Cha 13 Respiratory	Interactive CD
11	Tues.	4-1	Cha. 13 Respiratory & Cha. 14 Urinary	BIOPAC (respiratory volumes)
	Thur.	4-3	Cha. 14 Urinary	Urinalysis
12	Tues.	4-8	Cha. 16 Digestion	Interactive Physiology
	Thur.	4-10	Cha. 16 Digestion	Interactive Physiology
13	Tues.	4-15	Cha. 18 Endocrine System (Central)	Interactive Physiology
	Thur.	4-17	Exam 4	Review
			SPRING BREAK	SPRING BREAK (4-21 TO 4-25)
14	Tues.	4-29	Cha. 19	Interactive Physiology

			Endocrine System (Peripheral)	
	Thur.	5-1	Cha 15 Fluid and Acid-Base Balance	
15	Tues.	5-6	Cha. 20 Male Reproduction	Interactive Physiology
	Thur.	5-8	Cha. 20 Female Reproduction	Urchin Development Lab
16	Tues.	5-13	Review	
	Thur.	5-15	FINAL EXAM	Nothing needed