

Biology 2420-70 Human Physiology

Summer 2020

Professor

Bob McKnight,
robert.mcknight@hsc.utah.edu

TAs: Kaitlyn Stevens, email: u1025471@utah.edu
Landon Welch, email: labwelch14@gmail.com

Class materials

Text: Cindy L. Stanfield, Principles of Human Physiology, 6th ed. Benjamin Cummings. A digital version is available. To access, go to the Canvas course website and look for “bookself” near the bottom of the modules list.

The objective of this course to learn how the human body works. To this end we will cover how the body maintains homeostasis, how it responds to stimuli, and how various diseases disrupt these processes. To reach these expected learning outcomes this course will:

- Describe how cells take in nutrients and generate and store energy
- Describe how cells communicate
- Describe the basics of hormonal control
- Describe how the brain perceives and sends information
- Describe how the senses of sight, hearing, smell and touch work
- Describe how the circulatory system delivers nutrients and oxygen to tissues
- Describe how the respiratory system takes in oxygen and removes carbon dioxide
- Describe how the renal system works to maintain fluid and salt balance

In order to treat all students equally, there is no opportunity to do an extra credit assignment at the end of the course in order to raise your grade. I am sorry, but I will not respond to any request for extra credit to improve one student's grade.

This course is challenging, especially under the current situation, so put in as much study time as you can.

A recording of each lecture and lecture slides will be posted on the Canvas course website. Many students find it helpful to print out the lecture slides (4-6 slides can be printed on a page) and take notes beside particular slides that are either emphasized or that you might want further clarification.

Study questions are posted for each chapter to help you focus your study efforts. We will go over the study questions for each chapter during a live Zoom meeting and a recording will be posted for later viewing. I plan to run reviews each Tuesday at 5 PM. TAs will also hold review sessions TBA. The review sessions provide an opportunity to practice responding to questions. Being able to respond is a good way to judge how effectively you are studying. Students typically do better on tests when they prepare and respond to questions during discussion time rather than simply writing down responses given by someone else.

Grading

95% of your grade will come from 3 midterms, 100 pts each and **1 final**, 100 pts. The final is not cumulative. Exams will be given through ProctorU. Each exam will count towards your final grade; you cannot drop any of the exams. . If you

have a pre-existing conflict with one of the exams, you must receive approval at the beginning of the semester to schedule a make-up exam. Emergencies that arise on the day of the exam will also need official documentation, including auto accidents (police report), hospitalization (note from the attending physician), or a death in the family (copy of the obituary).

5% of your grade will come from quizzes. There will be 7 quizzes each worth 4 points. **I will throw out the 2 lowest at the end of the semester**, therefore there is a possible of 20 total points from quizzes. **If you miss a quiz there is no way to make it up, it will count as one of your lowest quiz scores.** The quizzes will be taken through the Canvas Quiz module course website. It is the objective of the course to keep these dates. However, it is possible that an unexpected event(s) may make it necessary to change a date.

You can calculate your grade at any time in this class by determining the percentage of the points that you have earned in each exam and quiz taken plus any extra credit points earned and looking at the grading scale below.

Grade percent of points out of a possible 420 points

A	90% and above
A-	85-89%
B+	80-84%
B	75-79%
B-	70-74%
C+	65-69%
C	60-64%
C-	55-59%
D	50-54%
E	less than 50%

The lecture notes are designed to condense the reading material and introduce new or updated information.

Class website and your email address: We will be using the Learning Management System (LMS) "Canvas," which is found at utah.instructure.com web address. The following items will be posted to the class website: the class syllabus, lecture slides and study questions. Additionally, all of your scores on the exams and quizzes will be posted to the Canvas site. **It is your responsibility to periodically login to Canvas and verify that your scores are being correctly recorded.** Emails may be occasionally sent about important class events, such as reminders for exams or review sessions. You should check your University email and Canvas for announcements.

Course prerequisites: A basic understanding of general biology and introductory chemistry is expected. Therefore, the minimum recommended prerequisites are General Biology, (BIOL 1210 or 1610) and General Chemistry I (CHEM 1210).

Examination regrade policy: If your exam is incorrectly graded or there is any type of miscalculation in your exam score, you may submit your exam for a regrade by the next class period. Exam regrades will not be accepted after this time. For example, if exams were returned to the class on Monday and the next class period is Wednesday, then all exam regrades must be submitted by that day (Wednesday). You must be detailed and explicit with regards to exactly what mistake was made in the grading of your exam. If you take the exam with pencil or white-out, regrade requests will not be accepted. Your exam may be completely regraded which may result in an even lower grade. Regraded exams are always returned to students with the following exam.

Class drop (delete) and withdrawal policy: It is your responsibility to be aware of the deadlines associated with dropping or withdrawing from the course and exercise your right to drop or withdraw from the course by those deadlines, if you deem it necessary. The dates included in the syllabus are deemed to be correct however, you need to verify any date to ensure they are correct. Instructors do not have the ability to withdraw or drop students after these deadlines.

Incomplete policy: According to University of Utah regulations, an incomplete grade can only be given if all three of the following requirements are met: 1. You are passing the class (at least a C), 2. You have finished 80% of the class (the first three midterm exams), 3. Something beyond your control has prevented you from finishing the class, such as serious illness. Only very rarely do students meet these requirements. You can read about the University policy here: <http://registrar.utah.edu/handbook/incomplete.php>. Incomplete grades cannot be used to allow students to take a class a second time without paying tuition. An incomplete grade does not erase the scores from your current exams. It only allows you to take the final exam at a later date.

Academic integrity: You are expected to be honest in your academic studies. **Academic dishonesty of any type during the semester will result in a failing grade for the exam or quiz, and may result in a failing grade for the course.** Academic dishonesty includes the use of cheat-sheets, note cards, dictionaries, or books during an exam or quiz. Looking at another student's exam or transmitter during a quiz is cheating. Using a programmable calculator, smart phone, notebook computer, or tablet computer during a quiz or exam also qualifies as cheating. During exams and quizzes, you are only allowed a single non-programmable calculator and a pen. Blank scratch paper, if requested, is also permissible. During quizzes absolute silence must be maintained and your eyes should be on the screen the entire time. All instances of academic dishonesty are recorded in a University database, which is shared by all academic units on campus. If you are caught copying from another student, you will receive a zero for that test.

The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability Services, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability Services.

University Safety Statement. The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit safeu.utah.edu.

Addressing Sexual Misconduct. Title IX makes it clear that violence and harassment based on sex and gender (which includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).

<u>Date</u>	<u>day</u>	<u>Lecture Topic</u>	<u>Chapter</u>
May 11-15		Introduction to physiology	
		Biomolecules, Cell structure & Function	2
		Metabolism	3
May 15		Last day to add w/out a permission code	
		Last day to wait list	
May 18-22		Metabolism (cont.)	3
		Cell membranes part 1	4
May 21		QUIZ	
May 20		Last day to add, elect CR/NC, or audit classes	
May 25-29		Cell membranes part 2	4
		Chemical messengers	5
May 28		QUIZ	
June 1-5		Endocrine system	6
		Neurons and electrical impulses	7
June 4		QUIZ	
June 8		Exam 1 over chapters 1-5 (This date is tentative-it may change once things start)	
June 9-12		Synaptic transmission and neural integration	8
June 15-19		CNS	9
June 18		QUIZ	
June 22-26		Sensory systems, Part 1	10
		Part 2 vision	
		Part 3 Hearing, taste and smell	
June 25		QUIZ	
June 29		Exam 2 over material from Chapters 6-10 part 1 (tentative)	
June 30-July 3		Autonomic nervous system	11
July 6-10		Muscle physiology	12
June 19		Last day to withdraw from classes	
July 13-17		Cardiovascular system	13
		Blood vessels and blood pressure	14
July 16		QUIZ	
July 20		Exam 3 over material from Chapter 10 part 2-Chapter 13 (tentative)	
July 21-24		Respiratory system	16
		Gas exchange	17
July 23		QUIZ	
July 22		Last day to elect CR/NC	
July 23		Last day to reverse CR/NC option	
July 27-28		Renal function, Fluid and electrolyte balance	18
July 30		Final exam over material from Chapters 14-18 (Time TBA)	