

BIOL 4431: HUMAN PHYSIOLOGY (FALL 2024) COURSE SYLLABUS

Instructor: Dr. Marcia Hesser
Senior Lecturer of Organismal Biology
Phone: (470) 578-6513
Email: mhesser@kennesaw.edu

Office: SC 323

Office Hours: MTW 10:00-10:30 am, or by appointment

Feel free to stop by my office at any time. If I am not facing a deadline, I will be happy to speak with you!

Helpful Links:

[D2L Brightspace](#)

[Student Policies](#)

[Student Resources](#)

Course Description & Learning Outcomes:

This is a course in human systems physiology in which the principle of homeostasis will be used to understand how function is integrated from the cellular to the organismal level. Students will learn the complex interactions within the nervous, muscular, cardiovascular, respiratory, endocrine, renal, and reproduction systems. Students will utilize critical thinking in a lecture setting to explore physiological questions.

Student learning outcomes will be:

- (1) integrate the central concept of physiological homeostasis with organ systems, and apply other scientific disciplines to physiological mechanisms;
- (2) describe the physiology of the nervous, sensory, endocrine, and muscular systems, and identify their roles in controlling and moving the body;
- (3) describe how the cardiopulmonary system contributes to homeostasis;
- (4) describe the homeostatic physiology of the urinary and digestive systems, as well as how reproductive physiology contributes to propagation;
- (5) critically analyze scientific literature and real-life case studies as they apply to underlying physiology and human medicine.

Prerequisite courses: BIOL 1108/L and CHEM 1211/L

Credit Hours: 3

Meeting Times: 8:00-9:15 am TR CL 2008 (Section 02)

Required Textbook: *Vander's Human Physiology* (16th ed.) by Widmaier, Raff, & Strang
14th edition ISBN: 978-1-259-29409-9
15th edition ISBN: 978-1-259-90388-5
16th edition ISBN: 978-1-264-12573-9 (hardback)

Important note about Day 1 Access of our textbook:

Human Physiology is part of a textbook program called Day One Access. After enrolling in the course, you should receive an e-mail from KSU University Stores with instructions on how to access the course content (there will also be a link in D2L to the eTextbook). The purpose of Day One Access is to make sure that you have access to the digital course materials on or before the first day of class at a highly competitive rate. Everyone enrolled will automatically have access to the digital course materials through August 16 at 11:45pm (drop/add deadline). Those who have not opted-out or dropped the class by (drop/add date deadline), will receive a charge from the bookstore on their student account. You have the ability to Opt-Out through August 16 via the link in the email sent to you by University Stores. **If you do not opt-out you will be charged!**

Visit KSU’s website If you would like to know more about [Day One Access](#). Questions or concerns can be directed to dayone@kennesaw.edu.

Evaluation:

Assessment	Maximum possible points
Exam 1	100
Exam 2	100
Exam 3	100
Cumulative Final Exam	130
D2L Quizzes	100
Group participation	20
Total Possible	550

Grading Scale:

Grade	Point Range
A	495-550
B	440-494
C	385-439
D	330-384
F	329 or below

Syllabus “contract”:

My expectations of you:	Your expectations of me:
Attend class on time	Arrive to class on time or early
Prepare for lecture by completing pre-lecture homework/reading and downloading PPTs from D2L	Hold regular weekly office hours and inform you if these change
Minimize class distractions of social media	Reply to emails within 24 hours during the hours of 8am-3pm (by Monday morning on weekends)
Review lecture notes w/in 24 hours after class	Provide exam feedback within 1 week in class
Submit all graded assignments	Always be respectful and invested in your success
Come to office hours in you need extra help or explanations	
No cheating on exams or other unethical behavior	
Give all other students respect and demonstrate inclusive behavior in class	

Attendance:

- In order to receive maximum benefit from the course, students must attend lecture; however, attendance is generally not mandatory. There will be 5 class periods where attendance will be required to receive “Group participation” points—see section below for more information.
- If you are not feeling well, running a fever, or have knowingly been exposed to COVID-19 and must quarantine at any point during this semester, please do not come to class. Any covid-related absences will be excused, but you should make arrangements to get any material that you miss from a classmate. You will still be responsible for submitting all assignments on-time, unless otherwise arranged between yourself and the Instructor.
- Excuses for an absence must be provided to me within 1 week of the absence (at the latest), and documentation must be provided. If you provide me with a valid excuse, I will provide you access to pre-recorded lectures (on D2L) that you missed.
- I reserve the right to mark chronically tardy students (regularly more than 15 min late) as absent for the purposes of attendance.
- I reserve the right to “bump” borderline students with **perfect** attendance (i.e. no unexcused absences or no more than 1 excused absence) to the next grade; however, no more than 3 points will be given.
- KSU may shift the method of course delivery at any time during the semester in compliance with University System of Georgia health and safety guidelines. In this case, alternate teaching modalities that may be adopted include hyflex, hybrid, synchronous online, or asynchronous online instruction.
- **You are also responsible for all announcements made in class about exams and changes in the syllabus, as well as lecture notes for absences (I do not provide these).**

Lecture Exams:

- There will be 4 exams. Exams 1-3 are not comprehensive; however, each will assume that previous material has been learned. Exam 4 (Final Exam) will cover new material; however, it will also have a cumulative component. The format of each exam will be matching, multiple choice, and written response.
- Make-up lecture examinations WILL NOT be given, except for SERIOUS medical conditions, job/grad school interviews & academic conferences, and games for KSU sports teams. **A physician MUST provide written documentation of the illness, and must include a contact telephone number.** Documentation is also required for sports-related absences, interviews, and conferences and is required **1 week in advance**. Failure to provide adequate confirmation will result in a zero for the exam. The makeup exam must be administered within 1 week and will be in the format of my choosing (oral exams & essay exams are likely formats).
- You may only review written, in-person exam performance within 2 weeks of taking the exam.

D2L Quizzes:

There will be 11 homework assignments throughout the semester to be completed on D2L. Each “quiz” will be due at the beginning of the assigned class period and will review material from the previous week, but also cover material to be discussed in class that week. These are not traditional quizzes in that you should feel free to use outside resources (textbook, internet, etc.) or complete

the assignments in groups; however, you must submit your own quiz. You will have 2 attempts for each quiz and the highest grade will be recorded. Of the 11 quizzes, your lowest quiz grade will be dropped. **Late D2L quizzes will be accepted with a valid excuse and a 10% reduction in score per class period late. Contact Dr. Hesser to set up your late submission. "Computer problems" for last-minute submissions are not a valid excuse.**

Group Participation:

Throughout the semester, there will be 5-7 opportunities to earn in-class group participation points. Most of these opportunities will be case studies that will be completed in groups during certain lectures (these will not necessarily be announced ahead of time). Each opportunity will earn you 4 points, and you must be present for at least 5 to earn the maximum points possible. If you attend 6 of these opportunities, I will let you keep 4 points as bonus (they will be added to your total course point tally). All excuses for an absence on these days must be provided to me either prior to the absence, or within 1 week of the absence. To earn the 4 points, the missed work must be turned in within 1 week of the participation day missed.

Potential Course Bonus:

We will be completing a number of case studies over the course of this semester. Your extra credit assignment will be to design your own case study to include: an introductory narrative describing the situation, followed by a minimum of 5 questions based on the situation. The questions need to cover basic physiology as well as the pathophysiology related to the described situation. The maximum credit awarded will be 5 points added to your final course grade (which equates to 1 percentage point in the traditional 100-point scale). This bonus assignment will be due on the last day of classes and more information will be posted on D2L during the semester.

Academic Integrity:

Every KSU student is responsible for upholding the provisions of the Student Code of Conduct, as published in the Undergraduate and Graduate Catalogs. Section II of the Student Code of Conduct addresses the University's policy on academic honesty, including provisions regarding plagiarism and cheating, unauthorized access to University materials, misrepresentation/falsification of University records or academic work, malicious removal, retention, or destruction of library materials, malicious/intentional misuse of computer facilities and/or services, and misuse of student identification cards. Incidents of alleged academic misconduct will be handled through the established procedures of the KSU Department of Student Conduct & Academic Integrity (SCAI), which includes either an "informal" resolution by a faculty member, resulting in a grade adjustment, or a formal hearing procedure, which may subject a student to the Code of Conduct's minimum one semester suspension requirement. Any student caught cheating and/or plagiarizing, will receive a zero for the assignment/exam and the Biology Department Chair & SCAI will be notified immediately.

Accommodations:

Any student with a documented disability or medical condition needing academic accommodations of class-related activities, schedules or exams must contact the instructor immediately. Written verification from the KSU Student Disability Services (SDS) is required. No requirements exist that

accommodations be made prior to completion of this approved University documentation. All discussions with the instructor will remain confidential.

TENTATIVE LECTURE SCHEDULE OVERVIEW*

WEEK #	WEEK OF	TOPIC	CHAPTER(S)
1	8/12	Introduction to Course/Homeostasis Friday (8/16): Last day to Drop/Add a class (11:45pm)	1
2	8/19	Movement of Molecules Across Cell Membranes	4
3	8/26	Neuronal Signaling & Structure of the Nervous System	6
4	9/2	Neuronal Signaling & Structure of the Nervous System Thurs (9/5): Exam 1 (Chapters 1, 4, 6)	6
5	9/9	Sensory Physiology	7
6	9/16	Consciousness, the Brain, and Behavior	8
7	9/23	Muscle Physiology	9
8	9/30	Muscle Physiology Thurs (10/3): Exam 2 (Chapters 7-9)	9
9	10/7	The Endocrine System	11
	10/14	Cardiovascular Physiology Fri (10/18): Mid-term grades due	12
10	10/21	Respiratory Physiology Fri (10/25): Last day to withdraw with a 'W' (11:45pm)	13
11	10/28	Catch up day! Thurs (10/31): Exam 3 (Chapters 11-13)	
12	11/4	Kidney and Regulation of Water and Inorganic Ions	14
13	11/11	Digestion and Absorption of Food <u>OR</u> Reproduction	15 17
14	11/18	Catch up day! Final exam review	
15	11/25	Thanksgiving Break	
16	12/2	Extra credit case study due (midnight)	
		FINAL EXAM (Chapters 14 and 15/17) and cumulative: Tuesday December 3, 8-10am	

*lecture and exam schedules are subject to change. A more detailed daily lecture topic schedule is provided in a separate handout on D2L.

TIPS FOR SUCCESS: R.E.A.D.

- **REVIEW the material!** It is essential that you prepare for class appropriately and study material discussed in class within 24 hours after lecture. This may include reading the assigned

chapters/sections in the textbook, completing the pre-lecture D2L quiz, completing any lecture handouts, etc.

- **ENERGY—Attend class!** It is essential that you ask questions if you don't understand a concept. The longer you are confused about a given topic, the harder it may be for you to eventually understand it. In addition, your confusion could impede your understanding of related topics. *Please...don't be afraid to raise your hand in class or to talk to me one-on-one!* This class requires you to engage in class activities, so bring your coffee and come to class!
- **ACTIVELY study!** One way to ensure poor performance in this class is to put off studying the material until the day before the test. We will simply be covering too much material in too much detail for you to get away with cramming the day before an exam. Further, studies estimate that you should be devoting 4X the amount of time you are *in* class to studying *outside* of class time—that's 12 hours a week (outside of class time) for a 3-hour class! "Reading through" your notes alone is NOT an effective study method. *Trust me...you'll be glad you did!*
- **DEMONSTRATE your knowledge!** It is my custom to hand out fairly involved study guides. I have found that if students treat the study guide like a mock-exam (i.e., they **quiz themselves** using the study guide), they perform *much* better on exams. Submit ALL graded assignments and earn as many bonus points as possible. Get sleep the night before a test (don't cram all night), wake up with plenty of time to have breakfast and get to class, and remember to breathe!

COVID SYLLABUS ADDENDUM

Course Delivery

KSU may shift the method of course delivery at any time during the semester in compliance with University System of Georgia health and safety guidelines. In this case, alternate teaching modalities that may be adopted include hyflex, hybrid, synchronous online, or asynchronous online instruction.

COVID-19 illness

If you are feeling ill, please stay home and contact your health professional. In addition, please email your instructor to say you are missing class due to illness. Signs of COVID-19 illness include, but are not limited to, the following:

- Cough
- Fever of 100.4 or higher
- Runny nose or new sinus congestion
- Shortness of breath or difficulty breathing
- Chills
- Sore Throat
- New loss of taste and/or smell

COVID-19 vaccines are a critical tool in "Protecting the Nest." If you have not already, you are strongly encouraged to get vaccinated immediately to advance the health and safety of our campus community. As

an enrolled KSU student, you are eligible to receive the vaccine on campus. Please call (470) 578-6644 to schedule your vaccination appointment or you may walk into one of our student health clinics.

For more information regarding COVID-19 (including testing, vaccines, extended illness procedures and accommodations), see KSU's official [Covid-19 website](#).

Face Coverings

Based on guidance from the University System of Georgia (USG), all vaccinated and unvaccinated individuals are encouraged to wear a face covering while inside campus facilities. Unvaccinated individuals are also strongly encouraged to continue to socially distance while inside campus facilities, when possible.