

BSCI 546 Mammalian Physiology

Fall 2025, 3 credits

Day/Time/Place: Thursdays 4:10 – 7:00 PM in BEST 330

Contact Information

Instructor: Dr. Sonia Thomas
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Office Hours: By appointment only

The University of Kansas Mission, Vision and Values

Mission: "To educate leaders, build healthy communities, and make discoveries that change the world."

Vision: "To be an exceptional learning community that lifts each member and advances society."

Values: The acronym "IRISE" spells out the first letter of each of the university's five values: Integrity, Respect, Innovation, Stewardship, Excellence.

(<https://chancellor.ku.edu/mission-vision-values>)

Integrating Virtues Together Initiative

The purpose of higher education has been the acquisition of skills and knowledge – scientific knowledge in this case. However, it is more than just that. Education plays a formative role in the development of character. So, we contend that teaching is not only about gaining knowledge but shaping who we are and by developing practical wisdom we can make good decisions that shape and benefit society. We want our students to graduate with character traits that surpasses their own self-interest and help navigate their purpose in advancing society.

Course Materials

Textbook (Required)

McKinley's Anatomy and Physiology: An Integrative Approach

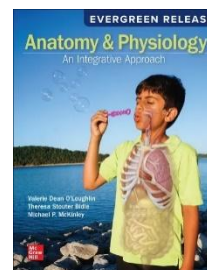
Authors: Michael McKinley, Valerie O'Loughlin and Theresa Bidle, 2025 edition

Connect & Etext, 6-month access for Anatomy & Physiology, 4th edition (Digital Access)

ISBN: 9781266779534

Publisher: McGraw Hill

Students can purchase the textbook (Connect and Etext) via the bookstore or from the publisher's website. **Homework assignments (optional) are accessible via Connect only. More information regarding the textbook will be provided on the first day of class.**



Course Description

An intermediate course in the structures, functions, mechanisms, and interactions of mammalian organ systems. Discussions span topics from molecular to whole animal functions. Not open to



students with credit in BIOL 546. Prerequisite: BIOL 150; BIOL 152 or BIOL 240; and CHEM 330 or consent of instructor.

Course Learning Outcomes

This course will examine the basic concepts of human physiology and will focus on basic anatomy, cell types, tissues and organs systems.

At the end of this course, students will be able to:

Course Learning Outcome 1: Explain the basic principles of physiology.

Course Learning Outcome 2: Describe the types of cells and tissues present in the human body.

Course Learning Outcome 3: Explain the anatomic structures in the human body and terminology associated with anatomy and physiology.

Course Learning Outcome 4: Describe the basic physiological processes of temperature regulation, respiration, electrolyte balance, muscle movement and other organ systems in the body.

Course Learning Outcome 5: Apply physiology concepts to hypothetical situations.

Course Learning Outcome 6: Develop critical thinking, presentation skills and make connections between experiences, ideas and academic goals.

Course Learning Outcome 7: Develop an international perspective on human physiology.

Grading

Grades will be determined using a point scale. Final grades will not receive a +/- designation and be determined using the standard scale.

A 90%-100% B 80%-89% C 70%-79% D 60%-69% F <60%

The total weight for the assignments will be distributed as follows:

	Weight
Attendance/Class Participation (excludes exams/holidays)	5
In class quizzes	20
Integrating Virtues Together Initiative	5
International review article - Presentations	10
Exam 1 and 2	20
End of the semester - Presentation	10
Final exam	30
Homework	0
Total Points	100

Attendance and Participation



Participation is an essential component of learning! It is important to actively engage in the class. To receive full points, students are required to attend class from beginning to end, must have their videos on if joining online, and participate in all activities assigned by the instructor for that day and sign the attendance sheet on all meeting days including exams. **If a student does not sign the attendance sheet, they will not receive attendance/participation points as well as points for assessments for that day.**

Reading

You will be assigned chapters to read each week.

Assessments

To help students keep up to date with course material and reinforce their understanding of the topics, quizzes and exams will be given. Students will be tested on any information covered including application of concepts learnt. **All exams are closed book.** Students must not refer to their notes, class lectures, textbook or any information on the internet, use any AI bot, consult with peers/friends, etc. when taking the assessments. You must not look at your neighbor's computer screen or paper while taking the assessments. You may discuss the questions on the assessment with your peers only after the assessment is closed. Students will be required to download Respondus Lockdown Browser from the KU IT website. You must download this at the beginning of the semester. Contact the KUEC IT department for any questions you have regarding Respondus Lockdown Browser. **Do not wait for the exam day to download Respondus Lockdown Browser.**

Quizzes and exams must be taken in the presence of a proctor. They will start promptly at 4:10 PM as per the class schedule. If a student requires to take an assessment at another location and time, then complete the "Proctor Agreement Form" during the first week of class and this form must be approved by the instructor. Do not delay submitting this form which is available on Canvas.

The questions on the exams can include multiple-choice questions, fill in the blanks, statements that the student must identify either as true (T) or false (F), short answers, matching, essay, etc.

Homework – Quizzes via Connect (optional)

Each week, you will have homework assignments. This homework is designed for you to learn the material. To access this, you must purchase **McGraw Connect** either from the KU bookstore or the McGraw Hill website.

Quizzes

Quizzes will be based on topics from the previous week. A computer is required to take the quiz and must be taken at the beginning of class. Either 15 or 20 minutes will be allocated at the beginning of class. Once you open the quiz, it must be completed in the allotted time as indicated for that quiz.

Exams

There will be two midterm exams. Exam 1 will include all material covered prior to exam 1 and Exam 2 will include all material covered prior to exam 2. There will be a comprehensive final exam. The final exam will integrate and test all concepts covered in the course.

Research Article Review



All students will be required to give a presentation on a peer-reviewed article. You must choose one article. Students are required to critically read the article and follow the prompts provided and put together a PowerPoint presentation. Students may work in groups of 2 for this assignment.

End of the semester presentation

Students will be required to present a short summary of what they learnt. Students will need to prepare a PowerPoint presentation, and this must be submitted to the instructor at the latest by November 28th. PowerPoints received after that time will have a total of 5 points deducted from their final score, in addition to the deduction of points in the rubric for this criterion. If you miss your presentation, you will not be able to make up these points. Students are encouraged to be creative with their PowerPoint presentations.

Integrating Virtues Together Initiative

Students will be required to work on either a case study or a health problem and determine the virtues required to tackle the situation. Students can work in groups of 2 and will be required to give a presentation. In addition, students will be required to take a VIA character assessment on the first day of class.

Additional Requirements

Technology requirements

Access to a computer is required to view slides, submit assignments, take assessments including exams. Students are required to bring their computer to the classroom for all the exams.

Minimal Technical Skills Needed

Students must know how to use a scientific calculator, navigate the internet, and use MS office suite.

Course Policies

Attendance/Participation

Attendance is required and points will be given for attendance and participation. It is highly recommended you engage each week with the class through discussion. In-class sessions will not be recorded. Circumstances may arise that prevent you from completing your course responsibilities.

Makeup quizzes or examinations will not be given except for severe illness, superseding university commitments, or exceptional circumstances. The student must email the instructor to make arrangements no later than the day prior to the quiz/exam date and must have a valid university excuse. This applies for all assessments. Otherwise, a grade of zero will be entered for that assignment. Students who are absent for extended periods of time or for more than 3 classes anytime during the semester will be referred to the Academic Student Success Coach. As per University policy, students are required to attend class in the modality they are enrolled in. Students who are on student visas are required to attend class as per USCIS requirements.

Class Behavioral Expectations



Students are required to read the material prior to class. Participation fosters learning and all students will be required to actively participate in class. We must treat all present in the classroom with respect. Disruption of any kind will result in the student being asked to leave the classroom or may be removed from the Zoom session. While students can bring electronic devices to class, it is expected that cellphones be turned off or be put on silent during class and students do not text, email or surf the internet during the lecture. Students who are found using devices to text, email or surf the internet for material not related to the course will be asked to leave the classroom.

Student expectations and Academic Success

I will provide structure, but I rely on students to complete assigned work in a timely manner, participate in discussions and to think critically. This must be a collaborative effort, and students are required to take a lead role in the learning process.

Students must make a note of all the deadlines and assessments and set up reminders so that deadlines are not missed. This includes completing the required assignments in a timely manner. You are encouraged to email the instructor with your questions.

Academic Integrity

Academic integrity is fundamental to the activities and principles of a university. All members of the academic community must be confident that each person's work has been responsibly and honorably acquired, developed, and presented. The academic community regards breaches of the academic integrity rules as extremely serious matters. For all assessments, the answers must be entirely your own thinking and effort. In submitting your answer, you explicitly agree that, during the time of the test, you have neither given nor received any assistance to or from another student or from any other source including an automated one, not authorized in advance by the instructor. Some examples of student academic misconduct both giving or receiving unauthorized assistance on examinations or quizzes; knowingly misrepresenting the source of any academic work; changing grades without authorization; forging signatures; or plagiarizing another's work. Students who are found guilty of academic misconduct are subject to a range of disciplinary actions, including suspension or dismissal. Refer to the assignment details regarding AI use.

Canvas (LMS)

Information for the course including documents, videos, assessments, announcements, etc will all be made available on Canvas. Please consult with the KUEC IT department if you have any issues with Canvas. The KU canvas page can be accessed using this link: <https://canvas.ku.edu/> and logging in with your KU username and password.

Zoom

If a Zoom meeting is scheduled for any reason, please follow the guidelines below. Students are required to have their cameras on. Students must have their screens and background in a manner that is not distracting to themselves and to others. This is extremely important to maintain the proper environment conducive to study. Students should not join from areas that have a lot of movement, for example from a bar or a restaurant, a location where there are monitors and televisions on, from a playground with folks playing sports in the background. These are just some examples of places that might be distracting. Any distractions would result in the student being kindly asked to leave the Zoom room.



Changes

Changes to the course may be made based on inclement weather, sickness or any relevant situations. Any changes or updates to the syllabus, schedule, topics, office hours, etc. will be communicated via Canvas. Please be sure to check your KU email and Canvas announcement regularly for updates or changes throughout the semester.

Intellectual Property

Course materials prepared by the instructors, together with the content of all lectures and class activities are the property of the instructor and other sources as mentioned in the material. Recording of class periods is not permitted. Class materials including lecture slides, videos, quizzes, exams etc, must not be reproduced or distributed to anyone. Commercial notetaking is not permitted. Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with university policy.

Non-academic Issues & Support

If you have any challenges, please contact the KUEC student services. Visit <https://edwardscampus.ku.edu/student-services/> to connect with a service provider via chat, email, or phone. Here you can schedule time with your Academic Success Coach, sign up for online student events, and get quick help for any questions you might have.

Accommodations

If you require an accommodation, please contact the Student Access Center (SAC). More information about Student Access Services can be obtained at the KU Edwards Welcome and Success Center by calling 913-897-8539. For students who have approved accommodation for testing please contact me as soon as possible.

KU Policy

This course is offered through the University of Kansas and abides by its policies and regulations. You may find those policies at <http://policy.ku.edu/office/Governance>.

Sexual Harassment

The University of Kansas prohibits sexual harassment, which also includes sexual assault, domestic violence, dating violence, and stalking and should be reported. Report harassment or assault to Office of Institutional Opportunity and Access at ioa@ku.edu | 785-864-6414, KU Public Safety Office at 785-864-5900 (non-emergency), and the Overland Park Police Department at 913-895-6300 (non-emergency). For emergencies, dial 911. For more information, see ioa.ku.edu.

Student Grievances

If you have any questions or concerns about any aspect of this course, please reach out to me first. In the unlikely event that we cannot resolve the problem, you may follow the guidelines in the Student Handbook.

Conceal & Carry



Kansas law allows the carrying of concealed handguns into most state buildings. Kansas Board of Regents and KU policy further describe campus specific procedures related for safe possession, use and storage of such weapons. Individuals who choose to carry concealed handguns are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and KU weapons policy. Safety measures outlined in the KU weapons policy specify that a concealed handgun:

- Must be under the constant control of the carrier.
- Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control.
- Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position.
- Must have the safety on and have no round in the chamber.

[Regular and Substantive Interaction \(RSI\)](#)

I utilize a multi-pronged approach to foster regular and substantive interaction in this course. The approaches I utilize include the following:

- Assignments are due each week in the course with feedback generally provided within a week of assignment submission. There may be some cases when feedback takes longer due to the volume of grading or other instructor commitments. When this occurs, I will send out an announcement regarding when students can expect to receive feedback on their assignment. Assignment details will be posted on Canvas.
- This is a synchronous course. We will be meeting weekly. Your attendance and participation are essential in the classroom. Based on circumstances, for example sickness, it is the student's responsibility to get permission in advance from the instructor for any adjustments regarding attendance. Lecture instruction will be provided each week. Students are required to come to class prepared and also required to actively engage in classroom discussions.
- Office hours are provided by appointment only. Please contact me to schedule a time that works with your schedule.
- I typically respond to questions sent to me via Canvas or email within 48 hours during the weekday. Messages sent over the weekend may not receive an answer until Monday.

[Course Improvement](#)

If you have any concerns about any aspect of this course, including the content, emphasis or pace of the lectures, your understanding of the material covered or anything else, you are encouraged to reach out to the instructor.

[Class Schedule](#)

Below is a tentative schedule that is subject to change. The instructor may choose to add or remove any of the topics below as per class circumstances.



Week	Dates		Topics	Weekly Assessments
1	August	21	Introduction to course	VIA Character assessment
2	August	28	Introduction to Human Anatomy and Physiology	Homework 1
3	September	4	Cells and Tissue	Homework 2
				Quiz 1
4	September	11	Integumentary system	Homework 3
				Quiz 2
5	September	18	Skeletal system	Homework 4
			Review	Quiz 3
6	September	25	Exam 1	
7	October	2	Muscular system	Homework 5
			International review article - Presentations	
8	October	9	Cardiovascular system	
			International review article - Presentations	Homework 6
			IVT - Student Presentations	Quiz 4
9	October	16	Lymphatic system	Homework 7
			International review article - Presentations	Quiz 5
10	October	23	Respiratory system	Homework 8
			Review	Quiz 6
			IVT - Student Presentations	
11	October	30	Exam 2	
12	November	6	Urinary system	Homework 9
			International review article - Presentations	
13	November	13	Fluid and Electrolytes	Homework 10
			International review article - Presentations	Quiz 7
14	November	20	Digestive system	Homework 11
				Quiz 8
15	November	27	Thanksgiving	
16	December	4	End-of-the-semester Presentations and review	
17	December	11	Final Exam	