

General Physiology (BI205)

Lecture Syllabus
Spring 2020



Course Information Lecture (4 hrs)
Lecture Times: MTWF 11:00-11:50a
Room: **STD 200**

Instructor Dr. Terese M. Zidon
Office: STD 325
Office Phone: 660-248-6339
E-mail: tzidon@centralmethodist.edu

Instructor Availability: Please contact me (via e-mail) to schedule a meeting to discuss course material as needed. It is important to me that each of you does well in the course and I am willing to assist you in any way I can! **Get help early and as often as you need it!!!**

Website: **MyCMU**, the course management system, **is required** for lecture handouts, useful internet links related to content discussed in class, and grade information.

Office Hours M 1:00-3:00p
W 9:00-10:00a
F 1:00-3:00p
Please schedule an appointment via e-mail if you need to meet with me outside of my office hours. In addition, I have an open-door policy, so you can drop by my office anytime the door is open.

Textbook options: There are multiple options to purchase the textbook for the course. All of the following choices are acceptable:

Option 1: Actual Paper Textbook

Human Physiology: An Integrated Approach, 8th ed.
Author: Dee UnGlaub Silverthorn
Publisher: Pearson.
ISBN: 9780134605197

Option 2: Electronic Version of the Textbook through www.vitalsource.com

Human Physiology: An Integrated Approach, 8th ed.
Author: Dee UnGlaub Silverthorn
Publisher: Pearson
ISBN: 9780134715070

Option 3: Electronic Version of Textbook with Mastering A&P access card.

Human Physiology: An Integrated Approach, 8th ed.
Author: Dee UnGlaub Silverthorn
Publisher: Pearson
ISBN: 9780134714806

Prerequisites/ Co-requisites:

Concurrent enrollment in BI205L is highly recommended to enhance the physiology experience.

Prerequisites: BI101 General Biology I and BI102 General Biology II. Additional pre-requisites: entire year of general chemistry OR permission to take the course by the instructor, Dr. Zidon, and division chair, Dr. Gordon.

Course Description and Objectives

This college course is designed to provide you with a detailed view of human physiology at the molecular, cellular, tissue, and organismal level. The overall goal of this course is to familiarize you with physiology of the various organs and organ systems of the human body with an emphasis on their control and integration between systems. The study of physiology requires a great deal of memorization and critical thinking including clinical application. We will briefly cover structure, so it is highly recommended that you have taken an extensive anatomy course (BI107

Anatomy). This course is primarily intended for pre-med (Biology), Nursing, Athletic Training, and other health related fields.

Course Objectives:

- o Develop a vocabulary of appropriate terminology to effectively communicate physiological information.
- o Explain physiological functions of body systems; both at the organ level and the cellular/molecular level.
- o Explain the principle of homeostasis and the use of feedback loops to control physiological living systems.
- o Explain interrelationships within and between physiological systems.
- o Synthesize ideas to make a connection between physiological knowledge and real-world situations (*pathophysiological studies*).
- o Explain the function of hormones at the molecular level, including the reproductive hormones.
- o Explain the electrical/chemical activity of neuronal transmission.
- o Describe the autonomic nervous system.
- o Itemize functional aspects of the senses.
- o Describe the mechanism of muscle contractions at the molecular and cellular level.
- o Detail the cardiac cycle and electrical activity of the heart.
- o Describe variations of cardiac output, blood flow, and blood pressure.
- o Summarize immune system mechanisms.
- o Explain gas exchange within the lungs and at the tissue level normally and during an environmental change.
- o Outline renal control of electrolytes and acid-base balance.
- o Describe neural and endocrine regulation of the digestive system.
- o Compare the ways energy metabolism is regulated.
- o Compare male and female reproductive systems, including hormones and development.

Course Expectations:

Expectations

This is a college classroom. You are expected to attend each class session, be on time, and be an attentive listener the entire lecture period. In addition, the specific reading assignments we are covering that day should be read prior to lecture. You are expected to be an active participant in class, asking questions, and engaging in discussions in a respectful manner to both the instructor and your fellow students. You can expect me to be prepared for each class session and to assist you when you need help. In addition, I will be available to assist you outside of class via e-mail or, in person, by appointment only.

Learning, studying, and understanding the anatomy course content is the student’s responsibility!

Final course grades are assigned objectively and without regard to student’s academic standing or to the requirements of other departments or programs. It is your responsibility (as a CMU student) to see that you are above any minimum requirements that may apply.

Course Evaluation

Lecture:		
Lecture Exams (Exams 1-4)	4 @ 100 pts	
Exam 1		100 pts
Exam 2		100 pts
Exam 3		100 pts
Exam 4		100 pts
Cumulative Final Exam (<i>Optional</i>)	1 @ 100 pts	
In-class Quizzes (1 dropped)	4 @ 25 pts	100 pts
Online Assignments	8 @ 20 pts	160 pts
BONUS: Clinical Case Study	1 @ 10 pts	<u>NA</u>
		660 pts
Grading Scale:		
A = 591-660 pts (90-100%)		
B = 525-592 pts (80-89%)		
C = 460-524 pts (70-79%)		
D = 393-459 pts (60-69%)		
F = ≤ 392 pts (<59%)		
Grades and points are final and non-negotiable.		

Exams (100 pts each) are in-seat and may contain multiple choice, matching, fill in the blank, and/or short answer. They cover material from previous lectures, as written on the schedule (amended as needed and discussed content in class).

****NOTE:** Cell phones or any other electronic devices (including ipods, laptops, smart watches on wrist, etc.) out during an exam will result in a zero for the exam.

Exam material is primarily from the lectures, homework, handout materials, classroom discussions, and the textbook. Bonus essay questions may be added to exams at the discretion of the instructor, but the “extra” points opportunity will only be added to the specific exam, meaning no exam will exceed 100 points.

Seating during exams: Every other seat must be occupied first before filling in the gaps. Occupancy will start with front rows and proceed to the back rows. In addition, you will place your backpacks that have your tablets, cell phones, and/or smart watches in the front or back of the room and pick them up on your way out.

FIVE In-class quizzes (25 pts each) will be administered during the semester (see semester schedule below) to assess individual knowledge and understanding of physiological content and the lowest quiz score will be dropped. For example, if you are absent for a quiz you will receive a zero for that quiz and that quiz will be dropped.

Make up exams and/or quizzes are to be completed ahead of time for any college duty absence (sports, concerts, etc). An excused absence after the exam/quiz date requires documentation (Dr. or Nurse note, etc) and an exam or quiz must be made up within 5 business days of when the exam was administered or you will receive a 0 and will drop that quiz at the end of the semester. For all make-up exams/quizzes it is your responsibility to contact the Center for Learning and Teaching to schedule an appointment. Call: 660-248-6890 or visit their website (CLICK HERE)

Homework Assignments on MyCMU:

Assignments and/or case studies are to be completed on your own outside of class and are available on MyCMU. The assignment will contain various questions pertaining to the physiological content covered in class to assess your knowledge over the in-class content and your integration/application skills. There will be eight assignments over the course of the semester, 20 pts each. Each assignment is due on the due date (see schedule of topics), no exceptions. **Late assignments will not be accepted for any reason** (excused or unexcused) because the answers will be available after the assignment due date on MyCMU to use as a study tool. Thus, not completing the assignment on time will result in a zero on that assignment in the gradebook, no exceptions!

Class Cancellation:

On occasion it will be necessary to cancel a class unexpectedly due to weather, illness, or other life situations and you will be immediately notified via an announcement in class, on MyCMU announcement blog, and an e-mail.

Athletic or Club Accommodations (College duty):

The student's responsibility for being an active member of a sports team or taking a special trip for a club is to choose classes for the semester that minimize potential absences as much as possible. The student must anticipate and plan for any advanced absences for the upcoming semester, and make arrangements with the instructor about each absence ONE WEEK in advance. **The student must make up any exams or quizzes BEFORE the event takes place**. Failure to inform the instructor prior to the student's absence is an unexcused absence and will result in a zero for an exam.

Instructor's Course Notes:

Attendance:

Attendance in lecture is recommended because it will affect your grade. Students are to contact other students in case of absences to determine what was missed during a class period. If there is a serious reason for missing an exam or quiz, you must contact the instructor at least **24 hours prior** to the examination. The excuse's validity is at the discretion of the instructor and may require documentation. If it becomes necessary for a student to miss more than one exam, excused or unexcused, he/she is highly encouraged to withdraw from the course.

Class preparation and participation is important to student success and in-class learning environment for discussion opportunities. At the discretion of the instructor, students who miss more than 4 classes may have a reduction in their final grade by up to one letter grade. In addition, students who come to class late or leave early may be counted as absent on that day for purposes of class attendance/grading policy.

Student Responsibilities:

We will start lecture promptly at 11:00am. If you need to arrive late or leave early for any reason, please come in quietly to minimize interruptions. Late arrivals and early departures are disruptive to the entire class and may affect your final grade. There is to be no talking during the lecture portion of class while the instructor is talking, this is very disruptive and disrespectful to other students and to the instructor. **Be respectful to the other students and your instructor.** If talking becomes a problem, I will ask the offenders to leave the classroom and they will be counted absent for that day.

Behaviors that impede the teaching/learning process including private conversations, cell phone or pager calls, and texting during class are not acceptable! Please turn off ALL cell phones and messaging during the entire class period. I, as the instructor of the course, reserve the right to administratively withdraw any student who presents continual behavioral issues that impede the learning environment for other students.

Most importantly: **Learning and understanding the physiological content is your responsibility!** I, as the instructor, am here to facilitate your learning and help you when needed. As a student enrolled in this course, **it is your responsibility to judge whether or not you have the skills to succeed.** You must carefully assess your own skill level and knowledge of chemistry, the human body, and essay writing and test taking. As always, there is assistance in the areas of writing, math, etc. available (and free of charge) at the tutoring center on campus for you. **Please be proactive and ask for assistance early!**

Technology Policy:

Tablets (iPads) will be permitted during class to access the course notes or the eTextbook. These devices should be used only in conjunction with exercises directly related to class activity. I recognize that tablets can be a useful way to take notes or even to search out additional information during class. However, inappropriate use—defined as use that inhibits the learning experience for you OR for others in the room—is prohibited! If you are using your tablet inappropriately you will be asked to leave the classroom and are prohibited from using the tablet and/or tablet for the remainder of the session.

ALL CELL PHONES must be turned off or muted during lecture! Use of cellular phones for entertainment purposes (internet and/or texting) in any way during the lecture sessions is extremely disrespectful and will be noted, which may affect your final grade if excessive use is examined. If there is some pressing issue that requires you to have your phone on, please set your phone to vibrate, inform the instructor, and leave the class if you have to take a call.

Academic Integrity:

CMU students are required to comply with the Academic Conduct Policy stated in the student handbook is expected at all times. Academic dishonesty is a serious offense and will not be tolerated. Academic dishonesty will not be tolerated. This includes, but is not limited to: cheating on assignments or exams, plagiarizing (copying another's idea or words without proper credit), stealing of tests or other academic materials, and/or knowingly falsifying records. The first offense penalty for academic dishonesty on **any** assignment will result in an **F** (0 pts) for the assignment and the Academic Affairs and Office of Student conduct will be notified; there are no exceptions. The second offense will result in the student being dropped from the course with an **F** and Academic Affairs and the Dean of Student Affairs will be notified. They will then decide on further disciplinary action, depending on the severity of the offense, which may include suspension or dismissal from the College. Refer to the *Student Handbook* for the CMU honor code. I am committed to this honor code.

An Honor Code is as follows: **No student shall commit any act of academic dishonesty in order to advance her or his own academic performance, or to impede or advance the academic progress of others.**

Examples of Cheating are defined as:

- Receiving aid during an exam from anyone (or anything, such as a device) other than the instructor
- Using unauthorized materials during an exam (e.g., cell phone, smart watch, copied content, etc.)
- Giving unauthorized aid to another student taking an exam (e.g., talking when exam is handed out)
- Plagiarism. Defined as copying an individuals' words or ideas without giving the source proper credit.
- Copying another student's work on any homework assignment or during class.

Syllabus Modifications:

Make sure to read the course syllabus carefully. There may be modifications (course requirements, scheduled topics, exam dates, in-class assignments, overall points, etc.) to the course syllabus as the semester progresses

to accommodate student learning or varying dates due to weather incidents. Students will be notified and given explanation of any changes made to the syllabus.

Success in this course:

Discipline and dedication in your study habits are important to be successful in this course. **Cramming for an exam does not work well in this course.** If you do not master the material from one week prior to starting the next week you will find yourself behind in this course and not do well on the exams. Regularly scheduled study sessions are highly recommended. ***The quality of your study time is as important as the quantity and neither one can be substituted for the other.***

- 1) Attend every class, pay attention and take notes. Research has shown that physical note taking reinforces learning through the process of both hearing the information and writing it down.
- 2) Reread your notes DAILY or at least three times per week (not just the night before the exam) to make sure you understand what you are learning and not just memorizing (although there will be plenty of memorization required). As a student, you need to be spending a minimum of 2 hours studying outside of class for every hour you are in class.
- 3) Understand how you learn best. Visit **vark-learn.com**. This site diagnoses your learning type and will provide you with type-specific learning strategies.
- 4) Read the textbook and self-evaluate your understanding by answering the “check your understanding” questions associated with each chapter and the review questions at the end of the chapter.
- 5) Productively interact with your classmates by discussing topics or join/make a study group to help with your understanding.
- 6) Complete all assignments on time and to the best of your ability.
- 7) If you have tried to understand a topic, have read the textbook, but still don’t “get it”, please ask the instructor. E-mail is best so you will have a written reply to your question and you don’t have to wait, but you can also make an appointment to meet me on campus to discuss a topic. You are encouraged to seek assistance from me by scheduled appointment whenever you have questions concerning course topics.

Intellectual Pluralism:

CMU and I welcome the diversity of ideas and opinions that students hold. It is this diversity that drives the intellectual stimulation and learning. If you have concerns with the structure or content of the course please address those concerns first with the instructor. Your grade will in no way be affected by our conversation. If after speaking with me you are not satisfied, you should direct your concerns to the Division Chair, Dr. James “Tiger” Gordon (jgordon@centralmethodist.edu).

Grievance Policy:

CMU has established a grievance policy and process designed to provide students and others with a process to resolve potential issues. This policy and process is established to provide persons with an avenue to file a written concern and to establish a process to track and implement changes as a result of said concern. For more detailed information, consult the CLAS catalog ([CLICK HERE](#)).

If an issue cannot be solved through consultation with the faculty or division chair, students can report an incident/issue within 30 days of the event via the online web form ([CLICK HERE](#))

OTHER STUDENT RESOURCES:

Library Resources:

Online databases are available for you to write a paper or a lab report. ([CLICK HERE](#))

CMU is committed to creating a learning environment that meets the needs of its diverse student body. If you anticipate or experience any barriers to learning, communicate your concerns with the instructor. In addition to speaking with the instructor, the following resources are available to ensure an opportunity to learn in an inclusive environment that values mutual respect.

Students with Disabilities:

Students with documented disabilities who may need academic services for this course are required to register with the Center for Learning and Teaching. Until the student has been cleared through the disability services office, accommodations do not have to be granted. If you are a student who has a documented disability, it is important

for you to read the entire syllabus as soon as possible. The structure or the content of the course may make an accommodation not feasible. Website for the Disability Services page: ([CLICK HERE](#)).

Student Success Services / Center for Learning and Teaching:

They provide you with personal advisors to help with many aspects of being a CMU student such as: student success planning (balancing academic rigor with other activities, identifying & overcoming barriers to success, mastering effective study skills, taking ownership of success and setbacks), adjustment to CMU, adjustment as a nontraditional student, coping with academic stress, etc. Website for the Center for Learning and Teaching: ([CLICK HERE](#))

Counseling services:

If you are having a hard time managing time and stress, and building healthy habits to improve academic success, or deal with any personal issues that may be getting in the way of focusing on your courses.

For students who are experiencing conflict which is impacting their educational environment, contact the Counseling Center at 660-248-6274 to schedule your initial appointment or visit the Counseling Center's website: ([CLICK HERE](#))

Non-Discrimination Policy:

CMU does not discriminate on the basis of race, color, sexual preference, religion, sex, national origin, age, or federally defined disability in its recruitment and admission of students. The University's educational programs, activities, financial aid, loan, and scholarship programs are made available to all qualified students without regard to race, color, sexual preference, religion, sex, national origin, age, or federally defined disability. The University complies with all federal and state non-discrimination requirements.

Tentative Schedule of Physiology Lecture Topics Spring 2019*

	Lecture Topics	Assigned Readings	Homework / Quiz (Due Dates)
Week 1 1/13-1/18	Introduction, Homeostasis, Enzyme Kinetics	Ch 1 Ch 4	
Week 2 1/21-1/24 <i>* No class Monday, 1/20</i>	Biological Membranes and Membrane Physiology	Ch 3 Ch 4 Ch 5	Assignment 1 due 1/24 Quiz 1 (1/24)
Week 3 1/27-1/31	Cell Communication and Hormones I	Ch 6 Ch 7	Assignment 2 due 1/31
Week 4 2/3-2/7	Hormones II and Reproductive System	Ch 23 Ch 26	Exam 1 (2/7): Ch 1,3,4,5,6,7,23,26
Week 5 2/10-2/14	Neuronal Conduction	Ch 5 Ch 8	
Week 6 2/17-2/21	Muscular Contractions and Control of Movement	Ch 12 Ch 13	Assignment 3 due 2/21 Quiz 2 (2/21)
Week 7 2/24-2/28	Central NS and Sensory Physiology	Ch 9 Ch 10	Assignment 4 due 2/28
Week 8 3/2-3/6	Autonomic NS Cardiovascular Physiology	Ch 11 Ch 14	Exam 2 (3/6): Ch 5,8,12,13,9,10,11
Week 9 3/9-3/13	Blood, Blood Flow, and Blood Pressure	Ch 15 Ch 16	Assignment 5 due 3/13
Week 10 3/16-3/20	Ventilation and Gas Exchange	Ch 17 Ch 18	Assignment 6 due 3/20 Quiz 3 (3/20)
Spring Break – No Classes (3/23-3/27)			
Week 11 3/30-4/3	Digestion, Metabolism, and Energy Balance	Ch 21 Ch 5 Ch 22	Exam 3 (4/3): Ch 14,15,16,17,18,21
Week 12 4/6-4/9 <i>*No class Friday, 4/10</i>	Kidneys and Urine Formation	Ch 19	
Week 13 4/13-4/17	Fluid, Electrolyte, and pH Balance	Ch 20	Assignment 7 due 4/17 Quiz 4 (4/17)
Week 14 4/20-4/24	Immune System	Ch 24	Assignment 8 due 4/24 Quiz 5 (4/24)
Week 15 4/27-5/1	Reproductive and Development	Ch 26	Exam 4 (5/1): Ch 5, 22,19,20,24,26
Comprehensive Final Exam (Monday, 5/4) 7:30-9:30am			

** This is a tentative schedule that may change during the course due to student progression. I will announce any necessary changes to the schedule during lecture, on MyCMU, or via email announcement.*