BSC3096 Human Physiology Syllabus- Summer 2022

Syllabus Policy

This syllabus is supplemental to that found on the Canvas page- refer to that for more specific information. You are responsible for reading and following <u>all</u> of the instructions, guidelines and schedules in this syllabus, and for checking the e-Learning announcements at least weekly for announcements regarding any changes. Not having read the information will not constitute an excuse for missing an assignment or deadline. Things are likely to change a lot over this semester, so you need to stay up-to-date.

Course Description

Welcome to Human Physiology! We'll be taking a tour through the human body to gain in-depth knowledge about how the body functions, not just on the whole-body level, but diving down into individual organs, tissues, cells, and even molecules.

In this class we'll answer questions like:

- How does an organ like the lung work?
- How do organs work together to ensure survival: the lungs with the brain, the cardiovascular system with the kidneys, everything with everything?
- How does a change to an individual molecule, cell, or organ affect function on a larger scale?

There are a lot of terms and concepts to learn, but more importantly you will begin to learn about how different organ systems work together for the benefit of the organism as a whole. This course should be helpful for anyone who is interested in the health sciences. But most of all, although it is hard work, it is a lot of fun learning about how the human body works. This course will also provide or enhance critical thinking skills- you will learn how to learn deeply, not just memorizing material but being able to integrate concepts within larger contexts.

Prerequisites

The prerequisites for this course are CHM 1031 (or CHM 2046, or CHM 2047) and BSC 2011.

Instructors

Course Instructor

Instructor: Dr. Constance Rich

Email: c.rich@ufl.edu

Office Hours: Wednesdays 1-2pm, Thursdays 12-1pm

Teaching Assistants: Luke Chandler (<u>lukemchandler@ufl.edu</u>) and Bowen Tan

(tanbowen@ufl.edu)

For questions about course content, your grade, or other personal issues, please use the Canvas mail tool. If you email directly, please include the course code in the subject. Expect a response within **48 hours on weekdays**. Emails during the weekends will be responded to on the following weekday.

Course Objectives

By the end of this course, you will be able to:

- 1. Explain physiological mechanisms of humans by applying basic principles of biology and chemistry.
- 2. Describe the fundamental mechanisms underlying normal functions of cells, tissues, organs, and organ systems in humans, and explain basic mechanisms of homeostasis across these levels.
- 3. Effectively solve basic problems when given physiological situations, both independently and in groups.
- 4. Apply functional mechanisms and their regulation to explain pathophysiological conditions, both in origin and in knock-on effects.
- 5. Generate hypotheses about physiological processes and design experiments to test hypotheses.

Required Course Materials, Software and Hardware

Primary Course Textbook

Human Physiology: An Integrated Approach. 8th Edition, by Dee Unglaub Silverthorn. Pearson, 2019. ISBN-13: 978-0-13-460519-7

Please note that this course will be participating in the **UF All Access** program. Students have two options to gain access to the REQUIRED MasteringA&P with materials when classes begin.

- Students will have the choice to "opt-in" to MasteringA&P access through Canvas once classes begin for a reduced price and pay for these materials through their student account. The price for UF All Access is about \$116.00.
- Students who do not choose to "opt-in" will be able to purchase a standalone MasteringA&P access code through the UF Bookstore. The price for the standalone MasteringA&P access code is about \$156.00. Both options provide access to the same materials. Note that the UF All Access is less expensive.

Minimum Technology Requirements

The University of Florida expects students entering an online program to acquire computer hardware and software appropriate to his or her degree program. Most computers are capable of meeting the following general requirements. A student's computer configuration should include:

- Webcam
- Microphone
- Broadband connection to the Internet and related equipment (Cable/DSL modem)
- Microsoft Office Suite installed (provided by the university)

Individual colleges may have additional requirements or recommendations, which students should review before the start of their program.

Technology

To complete your tasks in this course, you will need a basic understanding of operating a computer and using word processing software.

Your exams will take place using Honorlock. Honorlock is an online proctoring service that allows students to take exams on-demand 24/7. There are no scheduling requirements or fees.

You will need a laptop or desktop computer with a webcam, a microphone, and a photo ID. The webcam and microphone can be either integrated or external USB devices.

Honorlock requires that you use the <u>Google Chrome (Links to an external site.)</u> browser; furthermore, the Honorlock extension (Links to an external site.) must be added to Chrome.

For further information, FAQs, and technical support, please visit **Honorlock**.

Grade Distribution

Point Range (%)	Letter Grade	Point Range (%)	Letter Grade
93.33 or higher	A	70-76.65	C
90-93.32	A-	66.66-69.99	D+
86.66-89.99	B+	63.33-66.65	D
83.33-86.65	В	60-63.32	D-
80-83.32	В-	< 60	E
76.66-79.99	C+		

There is a chance (highly unlikely) that the final grades will be curved, so if you get an 80 you are guaranteed at least a B-. More information on grades and grading policies is here.

Grading

Assessments

Assessment Type	Quantity	Drops	Percent of Total
Exams	4	1	45%
Playposit Lecture Videos	15	1	12%
Case study Discussions	6	-	5%
Case study Quizzes	6	1	5%
Homework (Pearson)	15	1	13%
Individual Project	1	-	20%

Assignments

Exams

There will be **four exams**: three midterms and a final. All will be held online using Honorlock. These will consist mostly of problem-based, multiple choice, fill-in-the-blank, ordering and numeric (calculation) questions, and some short answer. All exams will be closed-book and you will not be allowed to use notes. You will be allowed to use scratch paper and a scientific calculator. DRC accommodations will be upheld. The final exam will be cumulative, but your lowest exam will be dropped, so your final exam is optional.

Individual Project

In order to give you experience with scientific literature and in communicating scientifically, you will complete an individual project investigating the physiological mechanisms behind a disability, disease, or gene. There will be multiple small assignments over the course of the semester designed to help with time management and allow you to build your project gradually. This is NOT a participation-based grade- you must **follow directions**, and I strongly recommend you consult the TAs with any questions. Details and rubrics are located in Canvas.

Playposit

There will typically be 3-5 questions associated with each lecture, and you will answer them in Playposit. If you get any questions wrong, you can go back and retake the Playposit bulb to re-answer the questions. You will get your lowest Playposit assignment dropped to account for illness, interviews, etc, so there will be no makeups.

Mastering A&P

You will be asked to answer questions and solve problems as homework problems. You will provide your answers using an online system (MasteringA&P) accessible via Canvas. You are allowed to collaborate with others on MasteringA&P homework, but you should be ensure that you are able to answer **similar questions** on the exam **on your own.** Homework assignments will be graded for correctness, but your score will be deducted 20% for each incorrect answer. Take advantage of those hints and remember that you can access the text.

Case Studies- Discussion and Quizzes

As many of you have limited experience with scientific literature and physiology outside of the textbook, you will participate in group discussion centered around a provided case study. You will then complete a more generalized quiz covering material from lecture as well as the case studies. For these quizzes, you may use your notes and collaborate, but you **may not use online resources like Chegg, CourseHero, Quizlet, etc.** If I find evidence of students posting questions there to get answers with zero effort, quizzes will be moved onto Honorlock and be closed-note. Additionally those who post will be committing an honor code violation, resulting in a zero on the assignment and a drop in their final grade of one letter grade.

Extra Credit

Extra credit has already been worked into this course. Any other requests for extra credit will be denied with annoyance.

Grading Discrepancies

Concerns regarding the accuracy of graded assignments will only be taken into consideration if the respective instructor has been notified **within 24 hours** after the assignment grade is posted.

Time Commitment

The UF College of Liberal Arts and Sciences assumes that you will devote 3-4 hours per week per credit-hour to each course during the regular fall and spring semesters. Because this course is 3 credits (including the Discussion session), you should therefore expect to devote 9-12 hours per week to this course. If you find yourself spending more than 12 hours per week on average, discuss this with your course instructor to see if you can refine your work and study habits. If you find yourself spending less than 12 hours per week on average, you should recognize that you may have difficulty fully learning and comprehending the material in this time.

Updates to Schedule and Course

Updates and changes to the course schedule, the syllabus, and any other aspects of the class content and structure will be communicated to you via announcements on the course e-Learning site. You are responsible for checking this site regularly for announcements.

Communicating electronically with the Instructor and Graduate Teaching Assistant

There are two primary modes of electronic communication for this class -- the discussion forum and Canvas mail. To ensure that your questions are answered as promptly as possible, please follow the communications guidelines below:

Discussion Forum: This course is participatory. Use the discussion forum on the course website for questions/answers about the course content, structure, assignments and activities. You are strongly encouraged to respond to your peers if you know the answer or can provide guidance. The instructor will monitor this area, but the instructor may not be able to read every posting and therefore this should **not** be used to communicate with the instructors.

Email: Please email through Canvas mail when possible, and if you email directly please include your course code. In either case, please be sure you are following appropriate <u>netiquette guidelines</u>.

Technical Support

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- http://helpdesk.ufl.edu (Links to an external site.)
- (352) 392-HELP (4357)
- Walk-in: HUB 132

Any requests for make-ups due to technical issues should be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You should e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Course Policies – I know they're annoying but READ THEM

Academic Honesty

UF students are bound by The Honor Pledge which states, "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code specifies a number of behaviors that are in violation of this code and the possible sanctions. For this course, any academic dishonesty, by definition in the Honor Code, will result in the dropping of at least 1 letter grade and a 0 on the relevant assignment. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TA in this class.

Policy Related to Late Work, Absences, and Make-up Work

There is no credit for late work in this class. There are drops for some assignment categories to give grace for off-weeks, forgetting an assignment, inexcusable events, etc.

Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found at <u>Attendance Policies (Links to an external site.)</u>.

No make-up exams or assignments will be given without prior permission or documentation of illness. Students that will be missing an exam due to a pre-arranged university-approved excused absence (sports, etc.) should let the instructor know a **minimum of two weeks in advance**.

In case of illness or personal emergency, students must submit documentation to the Dean of Students office (linked <u>here (Links to an external site.)</u>) and <u>request an instructor notification to be sent (Links to an external site.)</u>.

For exams, these notes must be received within five business days after the exam. Make-up exams may be short answer and essay questions and may not be multiple choice. All assignments other than exams will have no make-ups without excused absences for 3 consecutive days during the week of the due date, including the due date.

Any technical issues should be reported to the Help Desk immediately. See "Technical Difficulties" under "Getting Help" for the full policy and more information.

As this is an online class, you are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning.

Campus Resources

Health and Wellness

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If <u>you or a friend</u> is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Accommodations for Students with Disabilities

Students with disabilities requesting accommodations should first register with the <u>Disability Resource Center (Links to an external site.)</u> (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter that must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

Academic Resources

E-learning technical support: 352-392-4357 (select option 2) or e-mail to <u>Learningsupport@ufl.edu</u>. https://lss.at.ufl.edu/help.shtml.

Career Resource Center: Reitz Union, 392-1601. Career assistance and counseling. http://www.crc.ufl.edu/

Library Support: http://cms.uflib.ufl.edu/ask. Various ways to receive assistance with respect to using the libraries or finding resources.

Course Evaluation Process

I strongly welcome your thoughts on this course at <u>any time</u> in the semester. Please feel free to contact me or come to office hours if you feel the course could be improved. I will also ask directly for your feedback periodically in the semester.

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://gatorevals.aa.ufl.edu/. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open.

Suggested Study Methods

Health and Wellness

Participate and DO NOT fall behind! There is tremendous variation in how people learn and in the foundation they have upon entering this course. However, one thing that is certain is that you will not do well if you do not **participate and work**. Seniors have failed or withdrawn from this class and had to repeat it. Some of them had GPAs above 3.5 and were already conditionally accepted to medical or dental schools. They decided they would miss class and get through by cramming for exams. They were wrong and it cost them. You will need to participate in the class and work hard to do well.

- Review the chapter learning objectives—THESE ARE WHERE EXAM QUESTIONS COME FROM!
- Study both independently AND with others- use the discussion boards, set up Zoom sessions, be proactive!
- Work on understanding the concepts behind the Mastering A&P questions, quiz questions, and Playposit questions. These questions will introduce you to the types of questions and concepts that will be on the exams. Review these questions and try to anticipate how **different versions of the questions** might show-up on exams. They will. They will show up.
- Set aside dedicated time to study for this class every week (preferably every day).
- Don't get behind! This class will cover a LOT of content, so staying on schedule is important.
- Make sure you understand the figures and graphs. What are the axes? What are the variables? What is the main point of the figure or graph? What if you changed axes? What is you removed something/ a structure malfunctioned in that figure?
- Keep up with material. Worth saying again. This is likely to be one of the most **conceptually difficult** courses you will take. It also has the potential to be one of the most stimulating and rewarding. You will be required to build on what you have learned in other courses and to **apply concepts as opposed to memorizing facts**. Physiology is where you actually get to apply what you learned in courses like algebra, physics, chemistry, biochemistry, and cell biology. This will require you to learn incrementally and build on concepts as they are learned. Everyone learns differently, but the best advice I can give you is to stay current on the notes, study questions, reading, and **synthesis** of material. A good way to do that is...
- Utilize active study techniques. I will discuss this at length in class, but concept maps, comparison tables, etc are invaluable tools. From a 2020 student: "I got questions [on the MCAT] concerning nephrons that I knew exactly how to answer thanks to all your lectures and concept maps! Yay concept maps!"

A Final Note...

I really want you to do well in this class. And I want you to go on to do well wherever you go from here. You're happy, I'm happy, everybody wins. So if you're unhappy or stressed or overwhelmed, please talk to me or talk to someone at UF's Counseling and Wellness Center. We are here for you, because without you we don't have a job and don't get to do what we love.

