

# BSC3096 Human Physiology Syllabus- Fall 2021

## Syllabus Policy

You are responsible for reading and following **all** 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

This course involves the study of the functioning of human cells, tissues, organs, and organ systems, emphasizing the physical, chemical and mechanistic basis of normal physiology and the integrated function of the human body. The course also introduces pathophysiological changes associated with human diseases. 3 credits.

The class will meet in person (apparently) MWF Period 2 (8:30-9:20) in Turlington L011. However, in an effort to enhance safety in the classroom, I am offering a **Hyflex option to anyone who wishes to take advantage of it**. If you are not feeling well, if you don't want to wear a mask, or if you just don't want to try to find parking or wear pants, you may attend class live and participate virtually using the link in the Zoom Conferences tab. Lectures will also be recorded and stored in Zoom Conferences.

Attendance is not required, but I encourage you to come to class virtually and participate!

## Prerequisites

One semester of general biology (BSC 2010), and two semesters of general chemistry (CHM 2046 or CHM 2047 or CHM 2051 or CHM 2096) and recommended two semesters of general physics (PHY 2049 or PHY 2061), all with a minimum grade of C.

## Instructors

### Course Instructor

Connie Rich, PhD,

Lecturer, Department of Biology

Office hours: Tuesdays 9-10am (virtual), Wednesdays 2-3pm (in person and on zoom). If you need to meet outside of office hours, just email me. The best way to contact me is through the Canvas mail system. However, you may also use the following email: [c.rich@ufl.edu](mailto:c.rich@ufl.edu)

## Course TAs

Arik Hartmann ([arikhartmann@ufl.edu](mailto:arikhartmann@ufl.edu)), Maria Vallejo ([maria.vallejo@ufl.edu](mailto:maria.vallejo@ufl.edu))

Ph.D. candidates, Department of Biological Sciences

## Course Objectives

At the end of the course, students should be able to:

- Explain physiological mechanisms of humans by applying basic principles of biology and chemistry.
- Describe the fundamental mechanisms underlying normal function of cells, tissues, organs, and organ systems in humans, and explain basic mechanisms of homeostasis across these levels.
- Effectively solve basic problems in physiology, working independently and in groups.
- Apply knowledge of functional mechanisms and their regulation to explain the pathophysiology underlying common diseases.
- Generate hypotheses about physiological processes, design experiments to test these hypotheses.

You will reach these objectives through a combination of in-class lessons, in-class problem-based learning (“active learning” questions), discussions, and a group project.

## Required Course Materials, Software and Hardware

### Primary Course Textbook

Human Physiology: An Integrated Approach. 8<sup>th</sup> 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.

There will also be a loose-leaf print version of the textbook available at the UF Bookstore for students who wish to have a physical copy of the text. The price for the loose-leaf print version is about **\$38.00**.

## 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     | B            | 60-63.32        | D-           |
| 80-83.32        | B-           | < 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 | Percent of Total |
|---------------------|----------|------------------|
| Exams               | 4        | 52%              |
| Group project       | 1        | 14%              |
| Quizzes             | 8        | 8%               |
| Learning Catalytics | 4        | 12%              |
| Mastering A&P       | 4        | 14%              |
| Case studies        | 6        | 2%               |
| <i>Total</i>        |          | 102%             |

## Assignments

### Exams

There will be **four exams**: three midterms and a final. All will be held in-person. These will consist mostly of problem-based, multiple choice, fill-in-the-blank, ordering and numeric (calculation) questions, and some short answer. Each midterm will consist of 30-40 questions. 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 regarding time will be upheld, and I will do my best to accommodate any other way I can.

The final exam will focus primarily on the last portion of the course but assumes that you have retained the general principles and information that you learned in earlier in the course.

## Group Project

You will complete a group project focusing on the physiological mechanisms of developmental disabilities culminating in a poster presentation. There will be multiple small assignments over the course of the semester designed to help with time management and allow you to build your poster 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.

## Quizzes

Quizzes will be open-note, open-book, and collaborative. These quizzes will be an extra form of studying through questions that will be challenging enough to facilitate conversation and debate with your classmates. This will greatly aid your understanding; Googling the question will not. There will be 10 quizzes and your lowest 2 will be dropped, **so no make-ups will be offered**. It is your responsibility to budget this for illnesses, post-graduate school interviews, events, etc.

## Learning Catalytics

Learning Catalytics is included in the cost of Mastering A&P so that's what we're going with. You can access Learning Catalytics through the "My Lab and Mastering" tab. This is the best way to access it to ensure that it is using **your UF email address as your user ID**. This allows for your Learning Catalytics grade to be transferred directly to Canvas.

There will typically be 3-5 questions associated with each lecture, and they will be available as "Self-paced" questions from 8am until 11:59pm on the day of lecture. You are encouraged to work together on LC questions. For each question you answer, you will get 0.25 points for answering. You will get an addition 0.75 points if the answer is correct. You will drop 25% of your incorrect/ missed questions, so there will be no make-ups. It is your responsibility to budget these for illnesses, post-graduate school interviews, university sanctioned events, religious holidays, sleeping-in, etc.

## MasteringA&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

In order to reinforce the big picture as well as the interconnectedness of the human body, you will be presented with 3 sets of case studies. There will be various questions associated with these case studies that you must answer in order to demonstrate your ability to think critically and make connections. You are welcome to collaborate with your classmates on these, but, as with quizzes, Google will not help you as much as you think.

## Extra Credit

Extra credit has already been worked into this course. In addition to the 2% extra credit that can be added onto your grade (see Grading above), there will be extra credit in exams and potentially associated with the group project. 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 3 working days** after the assignment grade is posted. Keep a copy of all paper assignments in case there is a problem.

## 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, this 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.

**Direct Canvas Mail to the Instructors:** Direct email to Dr. Rich should be used only for messages that are **private** in nature or that have been posted to the Discussion Forum but were not solved. Use the Mail tool in Canvas for all such direct email. If you use any other email tool please include the course code as it may be filtered as spam or otherwise not be seen by your instructor. If you send a directly email to the instructor please include your course code.

## Technical Support

MasteringA&P: Contact Christina Bolton, our Pearson representative at [christina.bolton@pearson.com](mailto:christina.bolton@pearson.com).

E-Learning in Canvas. For help with E-Learning, call the UF Computing Help Desk at 352-392-4357, or visit the E-Learning support website: <https://lss.at.ufl.edu/help.shtml>.

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

### Fun things for Fall 2021... thought this would be over...

Our class sessions [and office hours] may be audio-visually recorded for students in the class to refer back and/or for those who are not able to attend live. [These recordings will only be posted through Canvas.] Students who participate verbally are agreeing to have their voice recorded. The Zoom chat will not be recorded.

Students may NOT publish recorded lectures without the consent of the instructor in any capacity.

### 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 Absences and Make-up Work

Requirements for class attendance and make-up exams, assignments, and other work are consistent with university attendance policies: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

If you must miss an assignment or exam due to an allowable scheduled absence (for example, to participate in a sanctioned university function), you must notify the instructor as soon as the event is scheduled or during the first week of classes. If you miss an assignment or exam due to an allowable but unscheduled and unpredictable absence (e.g., illness), you must submit proper documentation to the Dean of Students Office before you will be allowed a makeup.

### Late Work

All assignments are due by 11:59pm EST on the due date stated on Canvas. Late work will not be accepted unless it is the direct result of an allowable but unscheduled and unpredictable absence (e.g., illness), as defined above, at the discretion of the instructor, and with an excused absence from the DSO.

## 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 you or a friend is in distress, please contact [umatter@ufl.edu](mailto: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 who experience learning barriers and would like to request academic accommodations should connect with the Disability Resource Center (DRC) by visiting the [Get Started page](#). It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

### Academic Resources

*E-learning technical support:* 352-392-4357 (select option 2) or e-mail to [Learningsupport@ufl.edu](mailto:Learningsupport@ufl.edu).  
<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 any time 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

### Come to class and participate

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 (found in Canvas) – 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, Canvas quiz questions, and Learning Catalytics 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?
- There is a large amount of material covered. Exams will be based on the concepts and material in the lectures and in the questions that you are required to answer. Work on these questions as we progress. Compare your answers with those of other students, ask Dr. Rich and the TAs for guidance, and share answers and uncertainties with other students on the discussion boards.
- 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 come 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.

