

CONTACT INFORMATION

Instructor

Dr. Zepeng Yao

Email

zepengyao@ufl.edu (mailto:zepengyao@ufl.edu)

Office Hours (via Zoom Conferences)

Mondays 4-5 pm (TA) and Thursdays 1:30-2:30 pm (Zepeng Yao)

Teaching Assistants

Bachir Assao Neino (assaoneinobachir@ufl.edu (mailto:assaoneinobachir@ufl.edu)

Pratush Brahma (pratush.brahma@ufl.edu (mailto:pratush.brahma@ufl.edu)

Credit Hours

3

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.

Welcome to BSC3096: Human Physiology! We'll take a tour through the human body to gain indepth knowledge about how the body functions, not just on a whole-body level, but also by diving 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 memorize material, but also be able to integrate concepts within larger contexts.



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 function. The course also introduces pathophysiological changes associated with human diseases. You will learn the content through lectures and textbook readings, but it is important that you practice taking that content to another level to exhibit deeper thinking. We will do that together in this course through homework questions, paper discussions, and quizzes, looking at specific examples of pathophysiology. I strongly recommend you utilize active study strategies, each other, and very importantly, office hours to talk through concepts and really learn the material deeply. This will give you an excellent basis for further physiological study and hopefully an appreciation for the marvel that is you!



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.



COURSE REQUIREMENTS

REQUIRED TEXTBOOK

Dee Unglaub Silverthorn (2019). *Human Physiology: An Integrated Approach* (8th ed.). Pearson Education, Inc.

Please note that this course participates in the <u>UF All Access</u> ⇒

(https://www.bsd.ufl.edu/AllAccess/) program. Students need to gain access to the REQUIRED MasteringA&P with materials when classes begin, which include the eTextbook and homework questions. Students will need 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.

PREREQUISITES

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

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.

MINIMUM TECHNOLOGY REQUIREMENTS

To complete this course, you will need Internet access and an electronic device (laptop, iPad, etc) to access Canvas, use iClicker Cloud for lecture participation, and use Zoom to attend office hours.

ICLICKER CLOUD

The iClicker Cloud app is free for all UF students, instructional faculty, and staff. Because the iClicker service is now cloud-based, students no longer have to purchase iClicker remotes.

The iClicker app ensures that every student has a voice in the classroom and enables interactions and feedback in large classrooms. The iClicker Cloud app is available for Android and iOS devices and can be downloaded from the Google Play or Apple App Store.

You can find resources and help using iClicker Cloud on the UF iClicker Cloud page (https://at.ufl.edu/service-teams/classrooms/classroom-technology/iclicker-response-system/).

ZOOM CONFERENCES

Zoom is an easy-to-use video conferencing service available to all UF students, faculty, and staff that allows for meetings of up to 100 participants.

You can find resources and help using Zoom on the <u>UFIT's Zoom page</u> (https://ufl.zoom.us/).



COURSE SCHEDULE

Please note that this schedule is tentative and subject to change. For the most detailed and up-to-date schedule, please refer to the "Schedule" tab in Canvas.

Week 1: Chapter 1

Week 2: Chapters 2-4

Week 3: Chapters 3.4, 5

Week 4: Chapter 6 and **EXAM 1**

Week 5: Chapters 7, 5.7

Week 6: Chapters 8, 9

Week 7: Chapters 10, 11

Week 8: EXAM 2 and Chapter 12

Week 9: Chapters 12, 13

Week 10: Chapters 14, 15

Week 11: Chapter 15 and EXAM 3

Week 12: Chapters 17, 18

Week 13: Chapters 18, 19

Week 14: Chapters 19, 20

Week 15: Happy Thanksgiving!

Week 16: EXAM 4



COURSE POLICIES

LATE 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.

MAKE-UP POLICIES

Requirements for make-up exams, assignments, and other work in this course are consistent with university policies that can be found in Attendance-policies/).

No make-up exams or assignments will be given without prior permission or documentation of illness. Students who 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 (link https://care.dso.ufl.edu/) and request an instructor notification to https://care.dso.ufl.edu/instructor-notifications/).

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 questions. 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.

You are responsible for observing all posted due dates and are encouraged to be self-directed and take responsibility for your learning.

GRADING DISCREPANCIES

Any grade disputes or requests for re-grading, grade changes, etc. must be submitted **within 24 hours** of receiving the final score for the assignment/quiz/etc. This does not guarantee a change in grade, but rather a review of the grade. Requests or disputes submitted past this time period will not be addressed.

COMMUNICATION POLICY

All emails and online communication should be respectful and kind. Emails will receive a response within 48 hours on weekdays. If your email does not receive a response within a reasonable time period, consider revising your email and resending it. Your email may have contained language that failed to be respectful and/or kind.



GRADING POLICY

We will make every effort to have each assignment graded and posted within one week of the due date. Turnaround time is subject to change by the instructor's announcement.

COURSE GRADING POLICY

Assignment Type	Grade Percentage	Drops
Homework Questions (via Pearson)	20%	2
Quizzes	15%	2
Paper Discussions	5%	1
Exams	60%	0

GRADING SCALE

Percent	Grade	Grade Points
≥ 90.00	А	4.00
86.66 – 89.99	A-	3.67
83.33 – 86.65	B+	3.33
80.00 – 83.32	В	3.00
76.66 – 79.99	B-	2.67
73.33 – 76.65	C+	2.33
70.00 – 73.32	С	2.00
66.66 – 69.99	C-	1.67
63.33 – 66.65	D+	1.33
60.00 - 63.32	D	1.00
56.66 – 59.99	D-	0.67
≤ 56.65	Е	0.00

See the current UF grading policies \Rightarrow

(https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx) for more information.

LECTURES

The class will meet in person on MWF during Period 8 (3-3:50 pm) at WEIL0270

(http://campusmap.ufl.edu/?loc=0024). Lecture attendance is NOT required. However, students who attend lectures generally perform better in this class. Please note that lectures will not be video-recorded. Students are welcome to audio record lectures for personal review, but may NOT publish recorded lectures without the instructor's consent.

EXAMS

There will be **four noncumulative midterm exams**: All will be held in person. These will consist mostly of multiple-choice, fill-in-the-blank, ordering and numeric (calculation) questions, and some short-answer questions. Each midterm will consist of ~30-40 questions.

All exams will be **closed-book**, except that you may bring and use notes on a single piece of US letter paper (8.5 by 11 inches), which can be handwritten or printed on both sides. You will also be allowed to use blank scratch paper and a scientific calculator. However, you will **NOT** be allowed to use phones, tablets, computers, or other electronic devices, and you will **NOT** be allowed to collaborate with others. **Disability Resource Center** (https://disability.ufl.edu/) accommodations regarding time will be upheld, and we will do our best to accommodate any other needs.

QUIZZES

Quizzes will be administered through Canvas. You may use your notes, textbook, and Pearson Mastering A&P resources. However, you **may not** collaborate with others, and you **may not** use other online resources, including but not limited to search engines (e.g., Google), AI tools (e.g., ChatGPT), Chegg, CourseHero, and Quizlet. Utilizing these resources will constitute an honor code violation (see course policies).

There will be no more than one quiz each week, and your **two lowest** quiz scores will be dropped. Therefore, no make-up quizzes will be offered. It is your responsibility to plan for potential absences due to illnesses, post-graduate school interviews, events, etc.

HOMEWORK QUESTIONS (MASTERING A&P)

You will be asked to answer questions and solve problems as homework, which will be available through the Access Pearson tab in Canvas. You are allowed to collaborate with others on the Mastering A&P homework, but you should ensure that you can answer similar questions on the exam on your own. Homework assignments will be graded for correctness, and in many cases, you will have multiple attempts for each question. Take advantage of the hints provided, and remember that you can use your textbook and notes. Additionally, your **two lowest** homework scores will be dropped.

PAPER DISCUSSIONS

Since many of you have limited exposure to scientific literature and physiology beyond the textbook, you will engage in group discussions centered around three or four case study papers.

Your participation in these discussions will be graded, and the lowest score will be dropped.



UF POLICIES

This course complies with all UF academic policies. For information on those polices and for resources for students, please see third:

UNIVERSITY POLICY ON ACCOMMODATING STUDENTS WITH DISABILITIES

Students with disabilities requesting accommodations should first register with the <u>Disability</u> Resource Center (https://disability.ufl.edu/) (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.

UNIVERSITY POLICY ON ACADEMIC CONDUCT

UF students are bound by The Honor Pledge, which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The <u>Student Honor Code and Student Conduct Code</u> (https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/) specify a number of behaviors that violate this code and the possible sanctions. 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 TAs in this class.

NETIQUETTE AND COMMUNICATION COURTESY

All class members are expected to follow the rules of common courtesy in all email messages, threaded discussions, and chats.



GETTING HELP

TECHNICAL DIFFICULTIES

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

- http://helpdesk.ufl.edu)
- (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 email your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

HEALTH AND WELLNESS

- U Matter, We Care: If you or someone you know is in distress, please contact <u>umatter@ufl.edu (mailto:umatter@ufl.edu)</u>, 352-392-1575, or visit <u>U Matter We Care (http://umatter.ufl.edu/)</u> to refer or report a concern, and a team member will reach out to the student in distress.
- Counseling and Wellness Center: Visit <u>UF Counseling & Wellness Center</u>
 (http://counseling.ufl.edu/) or call 352-392-1575 for information on crisis services as well as non-crisis services.
- Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit UF Student Health Care Center (http://shcc.ufl.edu).
- University Police Department: Visit <u>UF Police Department (http://police.ufl.edu/)</u> or call 352-392-1111 (or 9-1-1 for emergencies).
- UF Health Shands Emergency Room/Trauma Center: For immediate medical care in Gainesville, call 352-733-0111, or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; UF Health Shands Emergency Room/Trauma Center (http://ufhealth.org/emergency-room-trauma-center).
- **GatorWell Health Promotion Services**: For prevention services focused on optimal well-being, including Wellness Coaching for Academic Success, visit the **GatorWell website** ⇒ (https://gatorwell.ufsa.ufl.edu/) or call 352-273-4450.

ACADEMIC AND STUDENT SUPPORT

- Career Connections Center: 352-392-1601. Career assistance and counseling services <u>UF</u>
 <u>Career Connections Center</u> ⇒ (http://career.ufl.edu/).
- Library Support: Various ways to receive assistance with respect to using the libraries or finding resources. <u>UF George A. Smathers Libraries Ask-A-Librarian</u> ⇒ (http://cms.uflib.ufl.edu/ask)
- **Teaching Center:** 352-392-2010 General study skills and tutoring: **UF Teaching Center** ⇒ (http://teachingcenter.ufl.edu/)
- Writing Studio: 352-846-1138. Help brainstorming, formatting, and writing papers: <u>University</u>
 <u>Writing Program Writing Studio</u> (http://writing.ufl.edu/writing-studio/)



CANVAS DISCUSSION BOARD

If you have a question not specific to you, consult the <u>Course Questions Discussion Board</u> (https://ufl.instructure.com/courses/544543/discussion_topics/4867452?
module_item_id=g0bb8a3b6c18593dfe6054d27d0d132ac). It's likely that others have the same questions. Feel free to answer questions posted by your peers.



COURSE EVALUATIONS

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at Providing Constructive

Feedback (https://gatorevals.aa.ufl.edu/students/). Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via GatorEvals (https://ufl.bluera.com/ufl/). Summaries of course evaluation results are available to students at GatorEvals Public Results (https://gatorevals.aa.ufl.edu/public-results). More information about UF's course evaluation system can be found at GatorEvals (https://gatorevals.aa.ufl.edu/).



PRIVACY AND ACCESSIBILITY POLICIES

For information about the privacy and accessibility policies of the tools used in this course, see the links below:

- Instructure (Canvas)
 - Instructure Privacy Policy (https://www.instructure.com/policies/privacy)
 - Instructure Accessibility (https://www.instructure.com/canvas/accessibility)
- Zoom
 - Zoom Privacy Policy → (https://zoom.us/privacy)
 - Zoom Accessibility ⇒ (https://zoom.us/accessibility)
- iClicker
 - <u>iClicker Privacy Policy</u>
 — (https://mhe.my.site.com/iclicker/s/article/How-does-iClicker-Cloud-s-Attendance-geolocation-functionality-maintain-students-privacy)
 - iClicker Accessibility (https://www.iclicker.com/accessibility/)
- YouTube (Google)
 - YouTube (Google) Privacy Policy → (https://policies.google.com/privacy)
 - YouTube (Google) Accessibility → (https://support.google.com/youtube/answer/189278?
 hl=en)
- Microsoft
 - Microsoft Privacy Policy (https://privacy.microsoft.com/en-us/privacystatement)
 - Microsoft Accessibility ⇒ (https://www.microsoft.com/en-us/accessibility/office? activetab=pivot 1%3aprimaryr2)
- Adobe
 - Adobe Privacy Policy ⇒ (https://www.adobe.com/privacy/policy.html)
 - Adobe Accessibility ⇒ (https://www.adobe.com/accessibility.html)