

Human Physiology Laboratory

PHYSIO 3203 Autumn 2022

Course Information

- **Course times:** 3 hours laboratory.
Time: 10:00AM – 1:00PM; Day: Wednesday; Room: Graves 1063.
- **Credit hours:** 2
- **Mode of delivery:** In-person

Course Director

All questions regarding operations of the course, reports, exams or excusals should be directed to the Course Director.

- **Name:** Mark Ziolo
- **Email:** mark.ziolo@osumc.edu
- **Office location:** 5072B Graves Hall
- **Office hours:** Mondays 10:20 - 11:15 am or by appointment.
- **Course Director preferred means of communication:**
 - My preferred method of communication for questions is **email**.
 - My class-wide communications will be sent through the Announcements tool in CarmenCanvas. Please check your [notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to be sure you receive these messages.

Teaching Assistants

- **Name:** TBD
- **Email:** TBD
- **Recitation times:** TBD
- **Teaching Assistants preferred means of communication:**
 - Teaching Assistants ***preferred methods of communication for questions are at Recitation or by OSU email (listed above).***



Course Prerequisites

At least 1 course in biology, 1 course in chemistry and PHYSIO 3200 OR 1 course in biology, 1 course in chemistry and EEOB 2520 with a “B” or greater OR equivalent with course directors permission.

Course Description

In this course students will learn the principles of human organ system function through hands on human laboratory experiments. Further understanding of these organ system functions will be gained through discussion of related disease case-studies.

Learning Outcomes

By the end of this course, students should successfully be able to:

- Gain knowledge on the workings of the major human organ systems.
- Understand how organ system function responds to stress.
- Understand how organ system function responds to, and is altered by, disease.



How This Online Course Works

Mode of delivery: This is a hands-on human laboratory experiment course that will meet in-person. Attendance is required at the in-person laboratory meetings to conduct human physiology experiments. In addition to in-person laboratories, online pre-work and laboratory report post-work is required.

Credit hours and work expectations: This is a [2] credit-hour course. According to [Ohio State bylaws on instruction](https://go.osu.edu/credit-hours) (go.osu.edu/credit hours), students should expect around [3] hours per week of time spent on direct instruction (in-laboratory work, instructor content and Carmen activities, for example) in addition to [3] hours of homework (pre-laboratory reading and post-laboratory assignment preparation, for example) to receive a grade of [C] average.

Attendance and participation requirements: This is a hands-on laboratory course, your in-person weekly attendance is required to conduct the necessary experiments and complete the laboratory report portion of your grade. All students are expected to attend in-person laboratory time to complete assigned experiments.



Course Materials, Fees and Technologies

Required Materials and/or Technologies

- LT cloud Access (AD Instruments).
- Human Physiology and Clinical Content (AD Instruments).

Recommended/Optional Materials and/or Technologies

- **Vander's Human Physiology-** by Widmaier, Raff and Strang. McGraw-Hill, 16th edition, 2023.

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

Required Software

Microsoft Office 365: All Ohio State students are now eligible for free Microsoft Office 365. Visit the [installing Office 365](https://go.osu.edu/office365help) (go.osu.edu/office365help) help article for full instructions.

CarmenCanvas Access

You will need to use [BuckeyePass](https://buckeyepass.osu.edu) (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the [BuckeyePass - Adding a Device](https://go.osu.edu/add-device) (go.osu.edu/add-device) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click **Enter a Passcode** and then click the **Text me new codes** button that appears. This will text you ten passcodes good for 365 days that can each be used once.
- [Install the Duo Mobile application](https://go.osu.edu/install-duo) (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at [614-688-4357 \(HELP\)](tel:614-688-4357) and IT support staff will work out a solution with you.



Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- [Navigating CarmenCanvas](https://go.osu.edu/canvasstudent) (go.osu.edu/canvasstudent)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** go.osu.edu/it
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** servicedesk@osu.edu

Digital Flagship

Digital Flagship is a student success initiative aimed at helping you build digital skills for both college and career. This includes offering an engaging collection of digital tools and supportive learning experiences, university-wide opportunities to learn to code, and a Design Lab to explore digital design and app development. Digital Flagship resources available to help Ohio State students include on-demand tutorials, The Digital Flagship Handbook (your guide for all things tech-related), workshops and events, one-on-one tech consultations with a peer or Digital Flagship staff member, and more. To learn more about how Digital Flagship can help you use technology in your courses and grow your digital skills, visit go.osu.edu/dfresources.



Grading and Faculty Response

How Your Grade is Calculated

The grade in this course is determined by 14 Laboratory Reports (10 points / report) and 1 final exam (20 points) totaling 160 points. Letter grades are determined from the percent of points obtained out of 160 points.

Assignment Category	Total Points
14 – Laboratory Reports (10 points each)	140
1 – Final Exam (20 points each)	20

See [Course Schedule](#) below for due dates.

Descriptions of Major Course Assignments

Laboratory Reports

The laboratory reports are a demonstration of completing the hands-on experiments and understanding of the material. Laboratory reports will include data collected from experiments and answers to end of laboratory questions.

Students will be excused from attending laboratory on the designated day only with a qualified excuse with sufficient documentation of the reason for the absence. Documentation of the reason must be objective (eg. from an authority other than the student). Make-up laboratory experiments are required and must be scheduled with the course director.

Final Exam

The final exam assesses your mastery of course learning objectives at the end of course. The exams will be multiple choice questions.

Students will be excused from taking an exam only with a qualified excuse with sufficient documentation of the reason for the absence. Documentation of the reason must be objective (eg. from an authority other than the student). Make-up exams will be scheduled with the course director. Should the final exam be missed (with a legitimate excuse), a make-up exam must be taken. The make-up will be a different multiple choice and/or short-answer exam that must be scheduled within 1 week of the original exam. Once the make-up exam has been scheduled, it cannot be rescheduled.

Late Assignments

Late submissions will not be accepted. Please refer to Carmen for due dates.



Instructor Feedback and Response Time

I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call [614-688-4357 \(HELP\)](tel:614-688-4357) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **48 hours on days when class is in session at the University**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check [your notification preferences](https://go.osu.edu/canvas-notifications) (go.osu.edu/canvas-notifications) to ensure you receive these messages.

Grading Scale

Grades are determined from the percent of points obtained out of 200 points based upon the following scale:

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B

80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-

67–69.9: D+
60–66.9: D
Below 60: E



Other Course Policies

Laboratory Report and Communication Guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.

Academic Integrity Policy

See [Descriptions of Major Course Assignments](#) for specific guidelines about collaboration and academic integrity in the context of this online class.

Ohio State's Academic Integrity Policy

Academic integrity is essential to maintaining an environment that fosters excellence in teaching, research, and other educational and scholarly activities. Thus, The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the university's [Code of Student Conduct](#) (studentconduct.osu.edu), and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the university's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct."

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the university or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. Ignorance of the university's *Code of Student Conduct* is never considered an excuse for academic misconduct, so I recommend that you review the *Code of Student Conduct* and, specifically, the sections dealing with academic misconduct.

If I suspect that a student has committed academic misconduct in this course, I am obligated by university rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the university's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the university. If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- [Committee on Academic Misconduct](http://go.osu.edu/coam) (go.osu.edu/coam)
- [Ten Suggestions for Preserving Academic Integrity](http://go.osu.edu/ten-suggestions) (go.osu.edu/ten-suggestions)
- [Eight Cardinal Rules of Academic Integrity](http://go.osu.edu/cardinal-rules) (go.osu.edu/cardinal-rules)

Academic Integrity Policies for this online course

- **Exam:** You must complete the exam yourself, without any external help or communication. The exams will be in-person. Exams will be timed, closed notes and closed book, as well as employing question banks with randomized questions. Exams must be taken at the assigned time.
- **Laboratory reports:** While you will work with a partner in the laboratory to gather results, your written Laboratory report should be your own original work. You are encouraged to ask a trusted person to proofread your assignments before you turn them in—but no one else should revise or rewrite your work.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups are encouraged, remember that comparing answers on a quiz, laboratory report or sharing laboratory experiment results is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

Student and Instructor Expectations

It is expected that all students and faculty involved in this course will conduct themselves in an appropriate, professional manner through their communication, attitude, and treatment of others.

Copyright for Instructional Materials

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on Title IX

All students and employees at Ohio State have the right to work and learn in an environment free from harassment and discrimination based on sex or gender, and the university can arrange interim measures, provide support resources, and explain investigation options, including referral to confidential resources.

If you or someone you know has been harassed or discriminated against based on your sex or gender, including sexual harassment, sexual assault, relationship violence, stalking, or sexual exploitation, you may find information about your rights and options on [Ohio State's Title IX website](http://titleix.osu.edu) (titleix.osu.edu) or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu. Title IX is part of the Office of Institutional Equity (OIE) at Ohio State, which responds to all bias-motivated incidents of harassment and discrimination, such as race, religion, national origin and disability. For more information, visit the [OIE website](http://equity.osu.edu) (equity.osu.edu) or email equity@osu.edu.

Commitment to a Diverse and Inclusive Learning Environment

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, [on-demand mental health resources](http://go.osu.edu/ccsondemand) (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at [614- 292-5766](tel:614-292-5766). **24-hour emergency help** is available through the [National Suicide Prevention Lifeline website](http://suicidepreventionlifeline.org) (suicidepreventionlifeline.org) or by calling [1-800-273-8255\(TALK\)](tel:1-800-273-8255). [The Ohio State Wellness app](http://go.osu.edu/wellnessapp) (go.osu.edu/wellnessapp) is also a great resource.

Additionally, Counseling and Consultation Service has developed resources for students that can be accessed remotely, including strategies for dealing with anxiety and stress related to COVID-19, which can be found here: <https://ccs.osu.edu/ccs-covid-19-updates/>, and a Mental

health strategies video series for managing mental health, which can be found here:

<https://ccs.osu.edu/mental-health-strategies-video-series/>

You can also visit <https://ccs.osu.edu/> anytime for more information regarding any of the services offered by Counseling and Consultation Service. A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the semester are encouraged to contact the College of Pharmacy Office of Student Services in room 150 Parks Hall (614-292-5001) OR OSU Counseling and Consultation Services (614-292-5766) for assistance, support and advocacy. This service is free and confidential.

Safety and Health Requirements

All teaching staff and students are required to comply with and stay up to date on all University safety and health guidance, which includes wearing a facemask in any indoor space and maintaining a safe physical distance at all times as required. Non-compliance will be warned first and disciplinary actions will be taken for repeated offenses.

Accessibility Accommodations for Students with Disabilities

Requesting Accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with [Student Life Disability Services \(SLDS\)](#). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: [614-292-3307](tel:614-292-3307)
- Website: slds.osu.edu
- Email: slds@osu.edu
- In person: [Baker Hall 098, 113 W. 12th Avenue](#)



Accessibility of Course Technology

This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [CarmenCanvas accessibility](https://go.osu.edu/canvas-accessibility) (go.osu.edu/canvas-accessibility)
- Collaborative course tools

The Faculty reserves the right to change the course syllabus and schedule of events, effective upon students receiving written notification, in accordance with University policy.



Course Schedule

Assignment details, additional readings, and links are located in Carmen (carmen.osu.edu).

All assignments are due by 11:59 pm EST.

Available Date	Due Date	Week	Topic
8-23-22	8-28-22	1	Getting Started and GI Physiology: Absorption and metabolism
8-29-22	9-4-22	2	Renal Physiology: Urine production and water balance
9-6-22	9-11-22	3	Endocrine System: Hormonal regulation
9-12-22	9-18-22	4	Case Study: Diabetes and polycystic kidney disease (PKD) / renal transplant
9-19-22	9-25-22	5	Nervous System: Electroencephalography (EEG) and Autonomic Reflexes
9-26-22	10-2-22	6	Musculoskeletal System: Electromyography (EMG), reflexes and reaction times
10-3-22	10-9-22	7	Special Senses: Sensory perception
10-10-22	10-16-22	8	Case Study: Incontinence
10-17-22	10-23-22	9	Cardiac Physiology: Heart Sounds and electrocardiogram (ECG)
10-24-22	10-30-22	10	Cardiovascular System: Blood Pressure and Circulation
10-31-22	11-6-22	11	Case Study: Left Ventricular Heart Failure and Myocardial Infarction
11-7-22	11-13-22	12	Respiratory System: Tidal Volume and the Diving Response
11-14-22	11-20-22	13	Case Study: Chronic Obstructive Pulmonary Disorder
11-28-22	12-4-22	14	Physiological Regulation: Cardiovascular effect of Exercise
12-9-22	12-15-22	Finals	Final Exam

