



University of Pittsburgh

Department of Biological Sciences

Title	BIOSC 1255 Physiology Lab Fall 2021 (2221)			
Course Description	This laboratory course complements BIOSC 1250 Human Physiology. Students will develop their understanding of physiological principles by measuring several homeostatic parameters of the human body. Students will also research a physiology topic of their choosing using peer-reviewed literature and other sources of scientific data. In addition to weekly assignments, reports and quizzes, students will also prepare a systematic review of their physiology research topic.			
Sections	Section	Day	Time	
	1020 (30628)	Wednesday	8:30 a.m. -12:20 p.m.	
	1015 (30626)	Friday	8:30 a.m. -12:20 p.m.	
Faculty	Dr. Laurel Roberts		247 Crawford Hall 412-624-4291	
Teaching Assistants	Teaching Assistant	Section	Contact	
	Darini Rajesh	Wednesday	DAR186@pitt.edu	
	Laura Timaran	Friday	LAT97@pitt.edu	
Office Hours	Faculty or Teaching Assistant	Day and Time	Location	Or by appointment: https://calendly.com/laurelb-1/individual-app
	Dr. Roberts	Tuesday, Thursday 9:15 – 10:00 a.m.	102 Clapp Hall	
Class Meetings	180 Crawford			
Materials	Materials will be provided online through Canvas and ADInstruments LT (subscription is \$27). You are encouraged to have access to a human physiology textbook published within the last 5 years to help you with some of the concepts. The library will have several options available so there is no need to buy a textbook for this course.			
Websites	Canvas: canvas.pitt.edu Zoom links to class and office hours and Panopto recordings are accessed through Canvas ADInstruments LT: https://accounts.kuracloud.com/user/login LabChart8 reader can be accessed through Virtual Labs			
Computer Use	Please let me know if your equipment fails or if you have lost connectivity (via mobile data) and seek help from the IT Help Desk (412)624-HELP: https://www.technology.pitt.edu/247-it-help-desk			
Canvas	All current students have access to canvas.pitt.edu . Course materials will be posted on this site. Lab Exercises are found on ADInstruments LT at accounts.kuracloud.com Documents including, but not limited to, syllabus, schedule, lab protocols, lab quizzes, course announcements or schedule changes via announcements will be available on Canvas. If you have problems accessing your Canvas account or Zoom, please contact the computer help desk at 412-624-HELP.			
Disability Resources & Services	If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact both your instructor & Disability Resources & Services (DRS), 140 William Pitt Union, 412-648-7890, drsrecep@pitt.edu , 412-228-5347 for P3 ASL users, as early as possible in the term. DRS will verify your disability & determine reasonable accommodations for this course.			
Academic Integrity	Cheating/plagiarism will not be tolerated. Students suspected of violating the University of Pittsburgh Policy on Academic Integrity (www.cfo.pitt.edu/policies/policy/02/02-03-02.html) will be required to participate in the outlined procedural process as initiated by the instructor. A minimum sanction of a zero score for the quiz, lab report or assignment will be imposed.			

Violation of the Academic Integrity Code requires the instructor to submit an Academic Integrity Violation Report to the Dean's Office.

All submitted work aside from quizzes and lab reports will lose 10% per calendar day late.

Course Learning Outcomes:

The student will demonstrate:

- A thorough understanding of the normal physiology of each examined system of the body.
- Knowledge of the structure and function of these systems, including the mechanisms for maintaining homeostasis
- The ability to evaluate clinical findings and comprehend medical scenarios to synthesize and interpret information
- The ability to search the medical literature, including electronic databases, and to locate and interpret up-to-date evidence on a research topic

Course Policies

Health and Safety Statement

In the midst of this pandemic, it is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. While in class, at a minimum, this means you must wear a face covering and comply with physical distancing requirements; other requirements may be added by the University during the semester. These rules have been developed to protect the health and safety of all community members. Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a Student Conduct violation. For the most up-to-date information and guidance, please visit coronavirus.pitt.edu and check your Pitt email for updates before each class.

E-mail Communication Policy

Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost because of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address. To forward e-mail sent to your University account, go to <http://accounts.pitt.edu>, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished. For the full E-mail Communication Policy, go to www.bc.pitt.edu/policies/policy/09/09-10-01.html.)

Emails sent in Canvas only go to your Canvas Inbox unless you allow Notifications so that you get them by regular email. Information on configuring your Notifications in Canvas is at <https://community.canvaslms.com/t5/Student-Guide/How-do-I-set-my-Canvas-notification-preferences-as-a-student/ta-p/434>.

Turnitin

Students agree that by taking this course all required assignments may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of Turnitin.com page service is subject to the Usage Policy and Privacy Pledge posted on the Turnitin.com site.

Equity, Diversity, and Inclusion

The University of Pittsburgh does not tolerate any form of discrimination, harassment, or retaliation based on disability, race, color, religion, national origin, ancestry, genetic information, marital status, familial status, sex, age, sexual orientation, veteran status or gender identity or other factors as stated in the University's Title IX policy. The University is committed to taking prompt action to end a hostile environment that interferes with the University's mission. For more information about policies, procedures, and practices, visit the Civil Rights & Title IX Compliance web page.

I ask that everyone in the class strive to help ensure that other members of this class can learn in a supportive and respectful environment. If there are instances of the aforementioned issues, please contact the Title IX Coordinator, by calling 412-648-7860, or e-mailing titleixcoordinator@pitt.edu. Reports can also be filed online. You may also choose to report this to a faculty/staff member; they are required to communicate this to the University's Office of Diversity and Inclusion. If you wish to maintain complete confidentiality, you may also contact the University Counseling Center (412-648-7930).

Your Well-being Matters

College can be an exciting and challenging time for students. Taking time to care for yourself and seeking appropriate support can help you achieve your academic and professional goals. You are encouraged to maintain a healthy lifestyle by eating a balanced diet, exercising regularly, avoiding drugs and alcohol, getting enough sleep, and taking time to relax.

It can be helpful to remember that we all benefit from assistance and guidance at times, and there are many resources available to support your well-being while you are at Pitt. If you or anyone you know experiences overwhelming academic stress, persistent difficult feelings and/or challenging life events, you are strongly encouraged to seek support. In addition to reaching out to friends and loved ones, consider connecting with a faculty member you trust for assistance connecting to helpful resources. The University Counseling Center is also here for you. You can call 412-648-7930 at any time to connect with a clinician. You can also visit the Counseling Center website.

If you or someone you know is feeling suicidal, please call the University Counseling Center at any time at 412-648-7930.

You can also contact Resolve Crisis Network at 888-796-8226. If the situation is life threatening, call Pitt Police at 412-624-2121 or dial 911.

If the situation is life threatening, call the Police:

On-campus: Pitt Police: 412-268-2121

Off-campus: 911

Assessment:	Number submitted:	Point value:	Total:
Lab packages: Pre-lab, lab, summary	10*	15	150
Presentations: Glucose Breathing	2	10	20
Data: Statistics	1	15	15
Epidemiology	1	15	15
WISER	1	15	15
Case study	1	10	10
Final Project: <ul style="list-style-type: none"> • Proposal • Literature summary • Lab protocol • Handout • Presentation 	1	75	75
TOTAL:			300

* Each lab will have pre-lab and lab results activities on Lt (5 points each). Post-lab summary will be submitted on Canvas (5 points).

Grading Scale

97-100	A+	93-96	A	90-92	A-
87-89	B+	83-86	B	80-82	B-
77-79	C+	73-76	C	70-72	C-
67-69	D+	63-66	D	60-62	D-
Below 60	F				

Schedule:

Week:	Date:	Topic:	Due:
1	August 27 th	NO CLASS	
2	September 1 st /3 rd	Blood clotting and typing	Pre-lab: In-Class Lab Report (Canvas/Lt): 8:00 a.m. 9/8, 9/10
3	September 8 th /10 th	Glucose Absorption*	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 9/15, 9/17
4	September 15 th /17 th	Heart ECG	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 9/22, 9/24
5	September 22 nd /24 th	ECG and Heart Sounds	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 9/29, 10/1
6	September 29 th /October 1 st	Blood Pressure	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 10/6, 10/8
7	October 6 th /8 th	Breathing*	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 10/20, 10/22
8	October 13 th /15 th	NO CLASS	
9	October 20 th /22 nd	WISER Kidney and Urine	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 10/27, 10/29
10	October 27 th /29 th	Muscle and EMG	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 11/3, 11/5
11	November 3 rd / 5 th	Reflexes and Reaction times	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 11/10, 11/12
12	November 10 th / 12 th	Peripheral Nerve Function	Pre-lab: 8:00 a.m. on class day Lab Report (Canvas/Lt): 8:00 a.m. 11/17, 11/19
13	November 17 th / 19 th	Open Lab	Pre-lab: 8:00 a.m. on class day Project proposal due by end of class
14	November 24 th /26 th	NO CLASS	
15	December 1 st /3 rd	Open Lab	Literature synopsis due for project
16	December 8 th /10 th	Research Topic Presentations	Project summary due

Presentations:

Number:	Date:	Topic:	Requirements:
1	September 15 th , 17 th	Glucose Absorption	5- minutes. Hypothesis, data, future directions
2	October 20 th , 22 nd	Breathing	5- minutes. Hypothesis, data, future directions
3	December 8 th , 10 th	Pathophysiology	10-minutes. Teach the class about a disease related to a lab protocol. Explain how the disease disrupts homeostasis, how you would modify a lab protocol to demonstrate the disease. Handout and summary paper required.