

*BIOLOGY 2402L*  
**HUMAN PHYSIOLOGY LAB**  
FALL 2017

**Section:** All  
**Time:** T&Tr

**Bldg:** LDB  
**Room:** 109

**Lab Instructors:**

TBA  
Office hours by appointment

Dr. Jordan Clark, Course Coordinator and Instructor  
Email: [jmc124@shsu.edu](mailto:jmc124@shsu.edu)

**Course Description:** This laboratory will introduce and apply the fundamental concepts in human physiology. Each lab is designed using the scientific method and concludes with students submitting a report of experimental findings in the format of a scientific publication. Thus, these labs will provide students with the opportunity to record, interpret and discuss data from each experiment.

**Required Course Texts:**

**Laboratory Exercises in Human Physiology: A Clinical and Experimental Approach with PhILS** by Lutterschmidt & Lutterschmidt.

ISBN: 9780073378053

**9781308526126**

**Lab Safety Protocol:**

- No food or drink in lab – put it away in your bag
- No cell phone use
- Clean your bench at the beginning and end of each lab period with the disinfectant spray and paper towels provided.
- Wash your hands before leaving lab
- Sterilize all equipment before and after use
- Replace all equipment to its proper storage area
- If you want to wear a lab coat, over-sized shirt, or apron, you must provide it.
- Gloves are ALWAYS discarded in Hazardous Material bags (red bags)

**Typical Laboratory:** Students will work in groups of 3 to 4 members. The lab instructor may assign groups or reassign members as needed. At the beginning of each lab the instructor will randomly choose one group to discuss the previous lab findings and homework answers. This should take approximately 15 minutes. Students will then take an open note quiz covering material from the previous lab session.

Students then complete the assigned experiment for that day. Any calculations or graphing not completed in lab must be completed at home.

**Attendance:** Attendance is mandatory. Each class meets for approximately 3 hours once a week and you are expected to be present the entire class period or until you are dismissed. There is a 10 minute tardy policy: If you arrive after the first 10 minutes of lab you will be given a zero for that day's prelab assignment. If you are not present when your group is selected to present data you will receive a zero for that for that lab's homework or discussion points.

**Academic Honesty:** Cheating will not be tolerated. Anyone caught cheating will be given a zero and will be reported to the Dean of Students for disciplinary action. Many of the labs will be completed at home. Students may work together to complete these lab calculations. However, you are responsible for understanding and interpreting that data if called upon. All results and discussions must be in your own words.

### Lab Assessment

Assessment	Points	Weight(%)
Post Lab	Vary	40
Prelab	5	20
Quizzes	10	40

**For all assignments:** When you turn in pre and post lab assignments you *must* sign off on the attendance sheet. If you do not sign off on the attendance sheet you will receive a zero for that assignment. No student is allowed to sign for another student. Post lab assignments will be submitted through *Turnitin* on BlackBoard. Postlabs will be due 24h before your lab meeting.

### Lab Schedule

Date	Topic
Week 2	<ul style="list-style-type: none"><li>• Intro to Lab/PhILS</li><li>• Intro to minitab</li><li>• Assign groups</li></ul> Lab 1: Scientific Investigation
Week 3	<ul style="list-style-type: none"><li>• Quiz 1</li><li>• Lab 2: Homeostasis</li></ul>

Week 4	<ul style="list-style-type: none"> <li>• Quiz 2</li> <li>• Lab 3: Diffusion/Osmosis/Tonicity</li> </ul>
Week 5	<ul style="list-style-type: none"> <li>• Quiz 3</li> <li>• Lab 4: Enzymes</li> </ul>
Week 6	<ul style="list-style-type: none"> <li>• Quiz 4</li> <li>• Lab 5: Action Potentials PhILS</li> </ul>
Week 7	<ul style="list-style-type: none"> <li>• Quiz 5</li> <li>• Lab 6: Reflexes</li> </ul>
Week 8	<ul style="list-style-type: none"> <li>• Quiz 6</li> <li>• Lab 7: Sensory Physiology</li> </ul>
Week 9	<ul style="list-style-type: none"> <li>• Quiz 7</li> <li>• Lab 8: Mechanics of Muscle Contraction</li> </ul>
Week 10	<ul style="list-style-type: none"> <li>• Quiz 8</li> <li>• Lab 10: Endocrinology</li> </ul>
Week 11	<ul style="list-style-type: none"> <li>• Quiz 9</li> <li>• Lab 12: Physiology of Blood</li> </ul>
Week 12	<ul style="list-style-type: none"> <li>• Quiz 10</li> <li>• Lab 11: Cardiovascular Physiology</li> </ul>
Week 13	<ul style="list-style-type: none"> <li>• Quiz 11</li> <li>• Lab 13: Respiratory Physiology</li> </ul>
Week 14	Holiday
Week 15	Review