

***BIOLOGY 2402L***  
**HUMAN PHYSIOLOGY LAB**  
**SPRING 2018**

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

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

**Lab Instructor:**

Ms. Caitlyn Osteen  
Email: [cao036@shsu.edu](mailto:cao036@shsu.edu)  
Office hours by appointment

**Course Coordinator**

Dr. Jordan Clark  
Email: [jmc124@shsu.edu](mailto:jmc124@shsu.edu)  
Office hours by appointment

**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. Students with more than three inexcusable absents will be reported to the course coordinator for review. 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.

**Assignments:** Most assignments are completed in groups. Each member is responsible for the performance of other members. Group evaluations will be conducted periodically. Group members with consistently poor performance reviews will be removed from the group. Once removed, that student will conduct all exercises and assignments individually.

Assignments will be typed, printed and handed directly to your instructor. Late assignments will be penalized 20% of the grade.

### Quizzes

Quizzes are given at the beginning of lab. If you arrive to lab once the quiz has started, you will not be permitted to take the quiz. Quizzes will cover previous lab material with an emphasis on experimental protocol. Questions will be multiple choice and short answer.

**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 (Including CTE)	Vary	45
Quizzes	20	55

### Lab Schedule

Date	Topic
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W1 Jan 17	No Labs
W2 Jan 22	Intro to Lab/PhILS Intro to minitab  Lab 1: Scientific Investigation
W3 Jan 29	Lab 2: Homeostasis
W4 Feb 5	Lab 3: Diffusion/Osmosis/Tonicity  Critical Thinking Exercise
W5 Feb 12	Lab 4: Enzymes
W6 Feb 19	Lab 5: Action Potentials PhILS  Critical Thinking Exercise
W7 Feb 26	Lab 6: Reflexes
W8 Mar 5	Lab 7: Sensory Physiology
W9 Mar 12	Spring Break
W10 Mar 19	Lab 8: Mechanics of Muscle Contraction
W11 Mar 26	Lab 10: Endocrinology
W12 Apr 2	Lab 12: Physiology of Blood
W13 Apr 9	Lab 11: Cardiovascular Physiology
W14 Apr 16	Lab 13: Respiratory Physiology
W15 Apr 23	Lab 14: Renal Physiology
W16 Apr 30	Metabolic Rate PhILS  Critical Thinking Exercise

W17 May 7	No Lab