

**BIOL 201L: HUMAN PHYSIOLOGY LABORATORY Sections 05 and 06
SPRING 2017**

Instructor: Dr. Jeffrey D. Triplehorn
Required text: Laboratory Manual from SAS-E ink
Location: 145 School of Science and Mathematics Building (SSMB)
Website: OAKS

Sections (section number in parentheses):

| MONDAY | INSTRUCTOR | TUESDAY | INSTRUCTOR |
|--------------------|------------|--------------------|-----------------|
| 7:50 am – 10:50 am | Jafri (01) | 8:00 am – 11:00 am | Jafri (04) |
| 10:50 am - 1:50 pm | Jafri (02) | 11:00 am - 2:00 pm | Triplehorn (05) |
| 3:15 pm – 6:15 pm | Jafri (03) | 2:00 pm – 5:00 pm | Triplehorn (06) |

Contact information:

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Office hours: Thursdays 11:00 am – Noon or by appointment

1. COURSE DESCRIPTION

The laboratory component of BIOL 201 Human Physiology provides hands-on experience for topics and principles of physiology presented in the lecture and experience working together in small groups to achieve each lab's objectives. BIOL111 and 112 are prerequisites.

2. LEARNING OUTCOMES

- 2.1. Identify and use the basic vocabulary of physiology.
- 2.2. Reiterate key physiological processes.
- 2.3. Relate physiology to human health and disease.
- 2.4. Demonstrate continued development of written, oral, and computational skill sets.
- 2.5. Demonstrate the ability to work as part of team.
- 2.6. Demonstrate an understanding of the scientific method and experimental design.

3. ASSESSMENT

Assessment of the lab will be in the form of:

- 3.1. **Written Laboratory Reports:** There will be 3 mini-reports and 1 final project report.
- 3.2. **Poster Presentation:** There will be 1 final project poster presentation.
- 3.3. **Quizzes:** You are expected to be on time to each laboratory. You are also expected to interact actively with your group, and asking questions.

The laboratory component will make up 25% of your overall BIOL 201 grade. The lecture and laboratory component both count towards the final grade in BIOL201.

Exam questions on the lecture test will cover anything from the laboratory manual or what we do in laboratory, including: 1) material from the pre-lab and post-lab discussions; 2) material in the lab manual; and, 3) activities we do in lab.

The last four weeks of the lab are reserved for group projects. Each group should begin discussing potential group project ideas early in the semester. Groups will be responsible for designing and conducting the experiments, collecting and analyzing the data during two designated labs, providing a written report (one per group), and presenting their results to the class in a group poster presentation (last class meeting). Each group is required to present a written proposal for their project that describes: what experimental question(s) they are investigating, the rationale, and an experimental plan (how the data will be collected and analyzed). The written proposal is due **on Lab 8 (Renal Phys)**. *Proposals not submitted by this date will result in a 20% penalty on both the written report and oral presentation for the entire group.*

Since many of the projects will incorporate some of the tools learned in the previous eight labs during the semester, it is important to learn and understand both the methodology and data analysis in those labs.

For the mini-reports and the final presentation report, each group will submit one report. Each person in the group will be responsible for one section of the lab report (Introduction, Methods, Results and Figures, Discussion) and each person should work on a different section on all four reports (i.e. so that by the end of the semester, each group member should have written all four sections). Grades for the reports will be based on the section for which the individual was responsible, plus the group composite score on the report: 67% individual, 33% group for mini-reports; and, 60% individual, 40% group for final report).

Students will also provide written comments (critiques) for Final Presentations by other groups.

4. POINTS DISTRIBUTION

| | | |
|---|------------------|---------------|
| Mini-reports | 30 pts x 3 | 90 pts |
| Final Report | | 50 pts |
| Final Presentation | | 20 pts |
| Student critiques of Final Presentation | | 10 pts |
| <u>Quizzes</u> | <u>6 pts x 5</u> | <u>30 pts</u> |

Total **200 PTS (25% of overall grade in BIOL201)**

5. LAB ATTENDANCE AND ATTIRE

Your attendance in lab is mandatory. You will be awarded a late mark for each time you come late to lab. Three late marks are the equivalent to one absence. For each unexcused absence, you will lose thirty (30) points.

You are required to be in lab for the three weeks of the independent projects (two data collection weeks and presentation week).

You should wear clothing that allows physical activity and the attachment of EMG/EKG electrodes. A good choice is shorts, shirts with short or no sleeves and decent shoes.

For the Renal Physiology Lab you will need a lab coat, closed-toed shoes and eye protection (you will not be permitted in this lab without these items).

6. STUDENT CONDUCT

- a. The lab door will close at the beginning of the lab session. Please do not knock at the door. The door will be open after the instruction portion is completed.
- b. Please turn off all cellular phones before entering the lab. If you use your cell-phone during lab you will be asked to leave the room.
- c. There is to be no talking during the instruction portion of the lab. If you have a question, please raise your hand prior to asking the question. While answering a student's question, please remain quiet so that the student and other class members can hear the reply.
- d. Remember you are attending the lab to learn and apply the material/principles covered in the lecture, read newspapers/magazine, sleep, or distract the instructor or the other students.
- e. If you have a documented disability than may require assistance, you will need to contact the Center for Disability Services for coordination in your academic accommodations. If the CDS will be involved in administering an exam, we request that you inform us in advance (e.g. the day before the exam is not acceptable). The CDS is located in the Lightsey Center in Suite 104. The CDS phone number is (843) 953-1431. For more information about disabilities, see <http://disabilityservices.cofc.edu>.
- f. No College of Charleston employee or student should be subject to unwelcome verbal or physical conduct. It is expected that students, faculty and staff will treat one another with respect. Individuals who violate this policy are subject to disciplinary action up to and including termination and/or expulsion from the College and the possibility of civil and criminal prosecution.
- g. Lying, cheating, attempted cheating, and plagiarism are violations of our Honor Code that, when identified, are investigated. Each incident will be examined to determine the degree of deception involved.

Incidents where the instructor determines the student's actions are related more to a misunderstanding will be handled by the instructor. A written intervention designed to help prevent the student from repeating the error will be given to the student. The intervention, submitted by form and signed by both the instructor and the student, will be forwarded to the Dean of Students and placed in the student's file.

Cases of suspected academic dishonesty will be reported directly by the instructor and/or others having knowledge of the incident to the Dean of Students. A student found responsible by the Honor Board for academic dishonesty will receive a XF in the course, indicating failure of the course due to academic dishonesty. This grade will appear on the student's transcript for two years after which the student may petition for the X to be expunged. The student may also be placed on disciplinary probation, suspended (temporary removal) or expelled (permanent removal) from the College by the Honor Board.

Students should be aware that unauthorized collaboration--working together without permission--is a form of cheating. Unless the instructor specifies that students can work together on an assignment, quiz and/or test, no collaboration during the completion of the assignment is permitted. Other forms of cheating include possessing or using an unauthorized study aid (which could include accessing information stored on a cell phone), copying from others' exams,

fabricating data, and giving unauthorized assistance.

Research conducted and/or papers written for other classes cannot be used in whole or in part for any assignment in this class without obtaining prior permission from the instructor.

Students can find the complete Honor Code and all related processes in the *Student Handbook* at <http://www.cofc.edu/generaldocuments/handbook.pdf>

| Date: | Lab | Content |
|--------------|------------|---|
| 1/23-1/24 | 1 | Lab Report Writing Workshop |
| 1/30 – 1/31 | 2 | Reflexes & Sensory Receptors |
| 2/6 – 2/7 | 3 | Muscle Physiology |
| 2/13 – 2/14 | 4 | Muscle Physiology Mini Experiment |
| 2/20 – 2/21 | 5 | Cardiovascular Physiology |
| 2/27 – 2/28 | 6 | Cardiovascular Physiology Mini Experiment |
| 3/5 - 3/6 | | Spring Break |
| 3/13 – 3/14 | 7 | Respiratory Physiology |
| 3/20 – 3/21 | 8 | Respiratory Physiology Mini Experiment |
| 3/27 – 3/28 | 9 | Renal Physiology (PROPOSAL DUE) |
| 4/3 – 4/4 | 10 | Final Group Project |
| 4/10 – 4/11 | 11 | Final Group Project |
| 4/17 – 4/18 | 12 | Open Lab (Help with posters, data analysis) |
| 4/24 – 4/25 | 13 | Final Group Project Presentations |