

**PCB3703L Human Physiology Laboratory  
Burnett School of Biomedical Sciences  
College of Medicine  
University of Central Florida**

**Fall 2009**

**Wilfredo López-Ojeda, RT(R), ARRT, MS**  
**Laboratory Coordinator**  
Email: wlopez@mail.ucf.edu  
Office: HPA II Room 315  
Phone: (407) 823-1792

**Lab Instructors & Staff**  
**TA office: HPA II Room 303**

**Matt Welsh, BS**  
mwelsh@mail.ucf.edu

**Lisa Ritchey, BS**  
lritchey@mail.ucf.edu

**Aidan Weir**  
aidan.weir@DeerBrookInc.com

**Cherine Belal, BS**  
cbelel@mail.ucf.edu

**Aditya Conjeevaram Kamesh, BS**  
aconjeev@mail.ucf.edu

**Brian Schanen, BS**  
Bschanen@vaxdesign.com

**Vidusha Cyril, BS**  
vidusha.c@knights.mail.ucf

**Pavithra Maniprasad, BS**  
mpavithraprasad@knights.mail.ucf

**Priyadarshi Palaniandy, BS**  
prp@knights.mail.ucf

## Laboratory Description:

This laboratory is designed to accompany the PCB 3703 Human Physiology lecture. It will help the student to better understand topics covered in the lecture and introduce new subjects. Students will be introduced to both the clinical and research perspectives of physiology. Each lab will consist of an informative lecture followed by laboratory activities. In addition, each student is required to participate in one group presentation. Due to the complex and integrated nature of physiology, success in the course is directly correlated with the time and effort put into learning. Make the most out of the time in the laboratory.

## Required Material:

- Human Physiology Lab Modules and Lecture Slides are available on the class website: [www.physiology.wordpress.com](http://www.physiology.wordpress.com).
- "A Visual Analogy Guide to Human Physiology" Paul A. Krieger.

## Suggested Text:

- "Human Physiology" Stuart Ira Fox.

**Lab Website:** [www.physiology.wordpress.com](http://www.physiology.wordpress.com)

## Grading:

- The lab grade comprises 30% of the final physiology grade. The grade % that you earn in the lab section will be multiplied by 30% which will represent your lab percentage of the total physiology grade.
- Grades will be available throughout the semester on the class website.
- The grade for this lab will be determined according to the following criteria:

Component	Unit Points (each)	Total Points
Pre-lab Quizzes	9 Quizzes (5)	45
Presentation	1 Presentation (50)	50
Lab Modules	9 Modules (5)	45
Mid-Term	1 Midterm (100)	100
Final Exam	1 Final (100)	100
*Reposition Quiz	1 Quiz (10)	10
Possible Points		340

\*Reposition Quiz may be extra credit

## Important Dates:

- Drop Deadline: Thursday, August 27 by 11:59 P.M.

- Add Deadline: Friday, August 28 by 11:59 P.M.
- Withdrawal Deadline: Friday, October 16 by 11:59 P.M.

### Lab Attendance:

#### !!! Students may only attend the lab section they are registered for!!!

Attendance is mandatory. When a lab is missed, components of the lab (quiz, lab results and presentation if scheduled on the day of absence) cannot be made up.

- The student can attempt to make up lost points by taking the reposition quiz, which is worth 10 points.
- With a third absence, the student will no longer be allowed in the lab, and the total points the student has at that point will be used to calculate the final lab grade.

### Academic Dishonesty and Student Conduct in the Classroom:

#### *Academic Dishonesty*

UCF is committed to a policy that entitles honesty in academic affairs. Any conduct that comprises a breach of this policy shall result in academic and/or disciplinary action. Which affects students grades and enrollment status.

Cheating whereby non-permissible written, visual, or oral assistance including but not limited to that obtained from another student is utilized on normative exercises. Unauthorized possession/use of examination or course related material may also constitute cheating.

Plagiarism whereby another's work is deliberately used or appropriated without any indication of the original source, thereby attempting to convey the impression that such work is the student's own. Any student failing to properly credit ideas or materials from another has plagiarized. Similarly, a student who has assisted another in any of the aforementioned breach of standards shall be considered equally culpable.

If there is any evidence of cheating, you will receive a ZERO for the quiz/exam in question. **Further sanctioning may result in an "F" for the course**, as determined by the instructor in record for the course. In addition, the student will be reported to the **Office of Student Conduct** for disciplinary intervention.

Again, cheating includes but is not limited to: looking/glancing at someone else's paper, giving answers to someone by any method, asking another student a question or talking with another student during a quiz/test.

(<http://www.goldenrule.sdes.ucf.edu/>)

#### *Student behavior*

Disruptive behavior in the classroom will not be tolerated. Persistency in such conduct, which includes, but is no necessarily limited to, inappropriate and/or excessive noises, excessive talking, *cell phones* utilization, moving about, laughing, and malicious, vulgar, or vindictive speech, threats, or gestures. If the professor deems it necessary, you may be asked to leave the classroom. If the student(s) refuse, campus police will be contacted.

### Lab Quizzes:

There will be a quiz at the very beginning of each lab section, except when there is a midterm or final exam. Quiz questions will be related to the material covered that day, so study well before all labs! The quiz questions will be taken from the lecture slides found on the website. There will be five multiple-choice questions, and will be presented as a timed slide show. Answer sheets will be provided for quizzes only. Please arrive to campus early to allow ample time for parking. **IF YOU ARE LATE TO CLASS AND THE QUIZ HAS ALREADY STARTED, YOU WILL NOT BE ALLOWED TO COMPLETE THE QUIZ!** HENCE, YOUR ONLY OPTION TO MAKE UP FOR THESE POINTS WILL BE DURING THE REPOSITION WEEK PERIOD! NO NEGOTIATION! Attempting to acquire answers from other students will result in a zero for the quiz and disciplinary action.

### Lab Exams:

The midterm and final exam will be scantron format multiple choice questions, including but not limited to the following question types: matching, fill-in-the-blank, true/false, multiple-choice and select all that apply. Each exam is worth 100 points. Student will be required to bring a scantron and pencil. There are no make up exams. If you have an extreme circumstance or emergency that will prevent you from being present at an exam, you must contact your lab instructor **AS SOON AS POSSIBLE**.

### Presentations:

Students will sign up for a group and topic the first day of class. The presentation topic should be a disease related to the physiological system covered in class that day. The entire slide show presentations should be limited to **10 minutes**, and include the following sections:

- **Background:** Introduce the disease, how many are affected, who is affected, symptoms, complications, history of disease, when discovered, etc.
- **Mechanism:** What is the causative agent? Bacteria, virus, fungus, autoimmune, hereditary, deficiency, other? How does the disease result from the causative agent?
- **Treatment:** How is the disease treated? Drugs, therapy, surgery, supportive care?
- **Current research:** Recent trials and/or innovations on the topic?

Appropriate citations must be included on the last slide. The cited sources must be credible, scientific and peer reviewed journals, publications, videos, etc. Certain credible websites may be used (ex. American Heart Association, American Cancer Society, etc.). WIKIPEDIA IS NOT ALLOWED. References may be spot-checked.

A rubric of the grading criteria is available in lab and on the website. You will need to fill out your information on this form and hand it to the GTA before the presentation. EACH group member MUST complete the criteria on the rubric. It is the student's responsibility to sign up for a group and remain in contact with group members.

### Lab Modules:

In each lab, students will conduct experiments which will reinforce the concepts covered in lecture and lab. Results obtained in lab will be recorded on the module that the student prints from the website and brings to lab. This must be turned in at the end of lab for a grade. Failure to bring a printed module to class will result in a zero for the lab report/module.

## Lab Safety:

1. No food or drinks. Consider all materials you use in the lab as potentially hazardous.
2. Become familiar with the location and operation of all safety equipment.
3. **Closed toe shoes must be worn at all times.** You may not enter lab without them!!!
4. Use proper safety attire such as gloves and lab coats during labs as instructed (See “notes” column of schedule).
5. **Use disinfectant to clean lab work surfaces before and after your lab. Failure to do so by spot-check can result in loss of points.**
6. Wear disposable gloves when working with chemicals or body fluids.
7. Restrain all loose clothing, long hair, and dangling jewelry during lab procedures. Keep all unnecessary materials away from the work area to reduce clutter and the possibility of an accident.
8. Report all accidents, spills or damaged equipment to your lab instructor immediately.
9. Use only disposable lancets and needles, and never attempt to bend, cut, or recap them when finished. Place all sharp items in a designated puncture resistant container.
10. Dispose of chemicals, waste material and body fluids according to directions. Any reusable glassware or utensils must be cleaned as directed.
11. Wash your hands thoroughly before leaving the laboratory.
12. If you have any special needs, are taking medications, are pregnant or have any medical conditions we should know about, notify your instructor.

# Human Physiology Laboratory Schedule

	Date	Topic	Recommended Readings	Quiz Content	Notes & Comments
Intro	8.31 - 9.4	Safety Issues & Presentation Sign-Up	Syllabus		Welcome
1	9.7 - 9.11	Homeostasis and Diffusion	Slides and lab module Krieger: 6, 7, 12, 13, 20-27	Homeostasis and Diffusion (Quiz 1)	Moderate exercise
2	9.14 - 9.18	Digestion & Enzymes and Energy	Slides and lab module Krieger: 100-106, 110, 111, 114, 118-121	Digestion & Enzymes and Energy (Quiz 2)	
3	9.21 - 9.25	Endocrinology	Slides and lab module Krieger: 196-217	Endocrine System (Quiz 3)	Moderate exercise
4	9.28 - 10.2	The Nervous System: Special Senses	Slides and lab module Krieger: 168, 169, 174, 175	Special Senses I (Quiz 4)	
5	10.5 - 10.9	The Nervous System: Reflexes and Synaptic Transmission	Slides and lab module Krieger: 176, 177, 188, 189	Synaptic Senses II (Quiz 5)	
6	10.12 - 10.16	Muscles	Slides and lab module Krieger: 38, 39, 46-55	Muscles (Quiz 6)	Moderate exercise
	10.19 - 10.23	Lab Midterm (Cumulative)		Labs 1-6	Bring a Scantron AND a Pencil
7	10.26 - 10.30	Blood & Cardiovascular Physiology I	Slides and lab module	Cardiovascular Physiology I (Quiz 7)	Lab coat recommended.
	11.2 - 11.6	<b>Reposition Period</b>		<b>Reposition Quiz</b>	Just a quiz today for extra credit. Be there! No make up!
8	11.9 - 11.13	Cardiovascular Physiology II	Slides and lab module Krieger: 56-63, 68, 69, 76-81	Cardiovascular II (Quiz 8)	Moderate exercise
9	11.16 - 11.20	Urinary Physiology	Slides and lab module Krieger: 144 -167	Urinary Physiology (Quiz 9)	Lab coat recommended
	11.23 - 11.27	Thanksgiving Week		<b>NO QUIZ</b>	<b>NO LABS THIS WEEK</b>
	11.30 - 12.4	Lab Final (Cumulative)	During regular scheduled lab period	Labs 1-9	Bring a Scantron AND a Pencil

Labor Day: Monday 9.7

Veterans Day: Wednesday 11.11

Thanksgiving: Thursday 11.26 - Saturday 11.28

Classes end: Monday 12.7

Final Exam Week: Tuesday 12.8 - Monday 12.14

- The Instructor of this course reserves the right to modify this schedule as necessary, and will notify students of the necessary changes.

# Oral Presentation Evaluation

Student Name: \_\_\_\_\_

Presentation Title: \_\_\_\_\_

Lab Section: \_\_\_\_\_

Criteria	Points	Comments
<b><u>Introduction</u></b> Student should briefly introduce themselves and their segment of the presentation.	0 * * * 5	
<b><u>Material</u></b> Presented material should be appropriate (college level) and well documented.	1 2 3 4 5	
<b><u>Voice</u></b> Student should speak loudly and clearly. Words must be pronounced correctly.	1 2 3 4 5	
<b><u>Eye Contact</u></b> The student must stand next to the screen and maintain eye contact with the audience.	1 2 3 4 5	
<b><u>Delivery</u></b> Student should be able to speak freely without reading directly from the slides or using flashcards. Students must demonstrate knowledge and maintain a comfortable pace.	1 2 3 4 5 6 7 8 9 10	
<b><u>Slides</u></b> Slides should be professional and easy to understand. the background must not be distracting, and slides should not contain much text.	1 2 3 4 5	
<b><u>Visuals</u></b> Appropriate images should be incorporated to facilitate audience understanding.	0 * * * 5	
<b><u>Contribution</u></b> The students must contribute equally to the group presentation as far as content and time.	1 2 3 4 5	
<b><u>Group Performance</u></b> Flow of the overall presentation/transitions, and teamwork.	1 2 3 4 5	
<b><u>Timing</u></b> Presentation must be 10 minutes or less. (-2 points for every minute over) TIME: _____	-2 -4 -6 -8 -10	
<b>Instructor initials 1:</b> <b>Instructor initials 2:</b>	<b>Grade: /50</b>	

