HUMAN ANATOMY AND PHYSIOLOGY I LAB - BIO 2110 FALL 2013

Description: This course offers a hands-on approach to learning about cells, bones, articulations and muscles. It is designed to support A&P lectures. The study of histological sections, using physiology recording software, and observing preserved specimens will assist with the learning of structure and function of various tissues and organs.

REQUIRED MATERIALS

- **Lab Atlas *(required):*** A Photographic Atlas for the Human Anatomy and Physiology Laboratory. 7th ed. (VandeGraff, Morton and Crawley)
- **Lab Manual -** Each student **MUST** print out the lab manual from Moodle. Each lab exercise will be found in the "Lab Manual" section of the home page. Each exercise is YOUR RESPONSIBILITY.
    - Please make sure all exercises are printed out prior to coming to each lab. If these exercises are not printed out for each lab this time…you WILL be asked to leave the class until you have the exercise.
- **Lab Paper:** Plain, no-line paper for drawings.
- **Pencils:** All drawings must be completed in pencil. You will lose points if you draw in pen (even if it is a good drawing). Make sure you bring more than one pencil to each lab. Drawing may need to be colored upon request, so you will also need…
- **Colored Pencils**
- **USB drive** for physiology labs.

SUGGESTED MATERIALS

- **Anatomy and Physiology coloring workbook.** This is an excellent source for studying both lab and lecture.

Learning Goals: In this course we will strive to develop several different learning skills, including: critical thinking, reading, oral communication, conducting research and the relationship between technology and biology. See detailed information following the tentative schedule.

Plymouth State University is committed to providing students with documented disabilities equal access to all university programs and facilities. If you think you have a disability requiring accommodations, you should immediately contact the PASS Office in Lamson Library (535-2270) to determine whether you are eligible for such accommodations. Academic accommodations will only be considered for students who have registered with the PASS Office. If you have a Letter of Accommodation for this course from the PASS Office, please provide the instructor with that information privately so that you and the instructor can review those accommodations.

Lab Work and Attendance:

Instructions for each lab exercise will be included in the lab manual that you are required to print for each lab from Moodle. You will be expected to familiarize yourself with each lab prior to coming to class.
Attendance is **MANDATORY**. Participation in lab activities is required and attendance will be taken. Lab exercises cannot be made up.

Your lab grade will be based on:

- 3 Lab Practical's 40%
- Drawings 30%
- Quizzes & Questions 25%
- 1 Lab write up 5%

Lab Practicals: There are three lab practical's during the semester. The set up of the exam and specific instructions will be explained in class.

Assignments and Quizzes: There will be a quiz, an assignment or both associated with each lab**.** Quizzes will be given at the beginning of the class. You are expected to be **on time**. If you are late you will miss the quiz and a retake is at the instructor's discretion. Question sets are due either at the end of lab or at the beginning of the next lab.

Lab Report: There is a lab write up for Lab 11. Specific instructions will be discussed during that lab.

Tentative Lab Schedule

Dates	Lab Topic	Assignment	Quiz
September			
5 and 10	1. Microscope and Cell Structure	Drawings	
12 and 17	2. Anatomy Language, Cell Structure and Reproduction	Drawings	Quiz Microscope and Cell Structure (Lab 1)
19 and 24	3. Epithelial Tissue	Drawings	Quiz Anatomy Language, Cell Structure and Reproduction (Lab 2)
26 and 10/1	4. Connective Tissue	Drawings	Quiz Epithelial Tissue (Lab 3)
October			
3 and 8	LAB EXAM 1 – Labs 1-4		
10 and 15	5. The Vertebral Column	Drawings	No Quiz
17 and 22	6. The Skull	Drawings	Quiz The Vertebral Column (Lab 5)
24 and 29	7. The Pectoral Girdle and Upper Extremities	Drawings	Quiz The Skull (Lab 6)
31 and 11/5	8. The Pelvic Girdle and Lower Extremities	Drawings	Quiz The Pectoral Girdle and Upper Extremities (Lab 7)
November			
7 and 12	LAB EXAM 2		
14 and 19	9. Cat and Human Musculature Upper Body	Diagrams	No Quiz
21 and 26	10. Cat and Human Musculature Lower Body	Diagrams	Quiz Cat and Human Musculature of the Upper Body (Lab 9)
28th	Thanksgiving break		
December			
3 and 5	11. EMG Grip Strength	Lab Write-Up	Quiz Cat and Human Musculature of the Lower Body (Lab 10)
10 and 12	12. Human Elicited Muscle Contraction	Question Set	No Quiz Lab Write-Up Due
17 and 19	LAB EXAM Exam times will be posted outside of room 221 and 223 Question Set Due for Elicited Muscle Contraction		

*__All drawings are due the next lab, unless otherwise stated by the instructor__.