Human Anatomy &Physiology I
Laboratory Information BIOL 314L
Bellingrath 307
Fall 2015

Instructor: Dr. Jim Daniels
Office: Bellingrath 301
Office Hours: TR 0930-1100 W 1200-1300 and by appointment
Phone Number: 833-4470
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Required Textbook: We have a custom version of the lab manual on order and it should be here soon. It is based on Marieb (primary author), *Human Anatomy & Physiology Laboratory Manual, 11th ed.,* Fetal Pig Version

Specific Objectives: The laboratory is designed to demonstrate and illustrate the learning objectives and topics covered in the lecture portion of the class.

Required Supplies: A Dissecting Kit (buy the one at the bookstore), Splash-proof safety glasses (ANSI Z87.1)

This lab grade makes up 20% of your grade for the BIOL314 course. Your lab grade will be determined as follows:

Attendance, Participation, and General Lab Etiquette	10%
Review Sheets& Pre-lab Quizzes	10%
Lab Midterm	40%
Lab Final (comprehensive)	40%

Review Sheets & Pre-Lab Quizzes: This will consist of selected questions from the Review Sheets in the lab manual, plus the Pre-lab quiz for each lab exercise we do. These questions are to be completed before arriving at lab and will be checked at the beginning of the lab

Exams: The exams will be a practical. This means that you may be asked to look through several microscopes, identify parts of a dissected animal, answer questions about previous experiments, identify various pictures or parts of models, etc.

There will be no exam make-ups.

There will be no make-up labs. You must attend the lab section for which you registered. You will not be permitted to attend other lab sections. **NO EXCEPTIONS**. If you miss a lab you will be responsible for obtaining the results and any handouts or information given.

General Lab Rules (also see lab safety contract)

1. No Whining
2. Don't Freak Out!
3. Arrive on Time, the door will be closed and locked at the scheduled lab time.
4. Clean up after yourself (you should have Dr. Daniels check your area for cleanliness before leaving the lab)
5. No Food or Drink
6. No Open-Toed Shoes or Sandals are allowed in Lab
7. Turn off cell phones (I reserve the right to answer your cell phone should it ring during class)
8. No Kids/No Pets/No Tobacco
9. Use all equipment with care and forethought
10. Treat lab instructor and fellow students with respect at all times
11. Immediately inform Dr. Daniels of any breakage, spills, injury, or other safety issue
12. Clean up after yourself!!

Attendance, Participation, and General Lab Etiquette: 5 percentage points will be deducted from your participation score for violation of any of the above lab rules. Likewise 5 percentage points will be deducted for arriving late to class, or failure to have required lab equipment (dissecting kit and lab safety glasses). This means if your miss, or are late to lab you will lose 10 percentage points from your final lab average. In addition, If you do not have the required safety glasses or are otherwise in violation of the above rules you must leave the lab and will receive no credit for that day's assignment. This also means that if you miss, or are late for 2 labs you will have lost all of your Attendance & Review sheet points for the semester

Academic Misconduct

All acts of dishonesty in any work constitute academic misconduct. This includes, but is not limited to, cheating, plagiarism, fabrication of information, misrepresentation, and abetting any of the above. Academic misconduct is considered a violation of the Huntingdon Honor Code and will not be tolerated. Consult the student handbook's section discussing the honor code. The student handbook can be found online at http://www.huntingdon.edu/student-life/student-handbook/ If you have questions in this regard, please contact me without delay.

Accommodation of Special Needs

Faculty at Huntingdon College make every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other possible adaptions. Please notify the Disability Services Intake Coordinator, Ms. Camilla Irvin, as soon as possible of requested accommodations. She may be reached at 833-4577 or by email at disabilityservices@huntingdon.edu.

Medical Considerations:

If you have a medical condition that may preclude participation in this course or any aspect of this course, the College suggests you consult your physician. The College will work with you based upon physician recommendations to find the best means to address any concerns.

LAB 1
9/1, 9/2

Introduction
Review of course syllabus & objectives
Rules & Safety Contract

LAB 2
9/8, 9/9

Exercise 1: The Language of Anatomy

Review Sheet: 1-16

LAB 3
9/15, 9/16

Exercise 3: The Microscope

- Activity 1: Identifying the Parts of a Microscope
- Activity 2: Viewing Objects Through the Microscopes
- Activity 3:Estimating the Diameter of the Microscope Field
- Activity 4: Perceiving Depth

Exercise 4: The Cell-Anatomy & Division

- Activity 5: Observing Various Cell Structures
- Activity 6: Identifying the Mitotic Stages

Exercise 5A: The Cell—Transport Mechanisms & Cell Permeability: Wet Lab

- Discussion Only (maybe activity #5)

Exercise 5B: Cell Transport Mechanisms and Permeability: Computer Simulation

Review Sheet: Ex.3: 1-4, 7, 8, 12
Ex 4: 8-10, 12, 13
Ex 5a: 1-3, 5, 7-10

LAB 4
9/22, 9/23

Exercise 6A: Classifications of Tissues

- Activities 1-5

Review Sheet Ex. 6: 1-5,10,11,12,14,16,19,20

LAB 5
9/29, 9/30
Exercise 7: The Integumentary System

- Activities 1-3, 5

Review Sheet: Ex. 7: 1-7,11

10/6, 10/7
<u>Open Lab for Midterm Review</u>

**************************10/13, 10/14************************************

MIDTERM EXAM!!!

LAB 6
10/20, 10/21

Exercise 8: Overview of the Skeleton: Classification & Structure of Bones & Cartilage

- Activity 1: Examining & Classifying Bones
- Activity 4: Examining the Microscopic Structure of Compact Bone
- Activity 6: Observing the Microscopic Structure of Different Types of Cartilage

Exercise 9: The Axial Skeleton

- Activity 1: Identifying the Bones of the Skull
- Activity 2: Palpating Skull Markings
- Activity 3: Examining Spinal Curvatures
- Activity 4: Examining Vertebral Structures

Review Sheet: Ex. 8: 1,4,5,6,14
Ex. 9: 1,2,5,6,10,11,12,15,17,19,21

LAB 7
10/27, 10/28

Exercise 10: The Appendicular Skeleton

- Activity 1: Examining and Identifying the Bones of the Appendicular Skeleton
- Activity 3: Observing Pelvic Articulations
- Activity 4: Comparing Male & Female Pelves

Lab 7 Continues onto next page!!!!!!!!!!!!!!!!!!

LAB 7 (continued)

Exercise 11: Articulations & Body Movements

- Activity 5: Demonstrating the movement of Synovial Joints
- Activity 6: Demonstrating Uniaxial, Biaxial, & Multiaxial Movements
- Activity 7: Demonstrating actions at the Knee Joint
- Activity 8: Demonstrating actions at the Hip Joint
- Activity 9: Examining the action at the TMJ

- **Review Sheet:** Ex. 10: 1,2,5,6,7,9,10,13,16,17
  Ex. 11: 1,3,6,7,9,10,11

LAB 8:
11/3, 11/4 **DISSECTION!!!!!!!!!!!!!!!!!!!!!!!**

Review of Skeletal Muscle Anatomy & Organization Exercise 12 & 13
Dissection Exercise 1: Dissection and Identification of Fetal Pig Muscles (p559)
****See note about lab 14 below****

Review Sheet: Ex. 12: 1,3,5,6,(7),8
Ex. 13: 1,2,5,6,7,8,9,10,11,12

LAB 9: **DISSECTION!!!!!!!!!!!!!!!!!!!!!!!**
11/10, 11/11

Exercise 14: Skeletal Muscle Physiology: Computer Simulation (**do this before lab**)
Dissection Exercise: Dissection of the Digestive System of the Fetal Pig

Exercise 15

- Activity 1: Identifying parts of a Neuron
- Activity 2: Microscopic Structure of selected Neurons
- Activity 3: Microscopic Structure of a Nerve

Review Sheet: Ex. 38: 1,3,4,6,7,14,16
Ex. 15: 2,3,4,8,11,14

11/17, 11/18
Open Lab Review For Final Exam

**************12/1, 12/2*********************

Final Comprehensive Lab Exam

BIOL314 Lab Safety Contract

1. Conduct yourself in a responsible manner at all times in the laboratory. Never fool around in the laboratory. Horseplay, practical jokes, and pranks are dangerous and prohibited.

2. Follow all written and verbal instructions carefully. If you do not understand a direction or part of a procedure, ask the instructor before proceeding.

3. Do not eat food, drink beverages, or chew gum in the laboratory. Do not use laboratory glassware as containers for food or beverages.

4. Perform only those experiments authorized by the instructor. Never do anything in the laboratory that is not called for in the laboratory procedures or by your instructor.

5. Observe good housekeeping practices. Work areas should be kept clean and tidy at all times.

6. Know the locations and operating procedures of all safety equipment including the first aid kit, eyewash station, safety shower, fire extinguisher, and fire blanket. Know where the fire alarm and the exits are located.

7. Be alert and proceed with caution at all times in the laboratory. Notify the instructor immediately of any unsafe conditions you observe.

8. Dispose of all waste properly. Sinks are to be used only for water and those solutions designated by the instructor. Solid chemicals, metals, matches, filter paper, and all other insoluble materials are to be disposed of in the proper waste containers, not in the sink.

9. Wash your hands with soap and water after performing all experiments. Clean, rinse, and wipe dry all work surfaces and apparatus at the end of the experiment. Return all equipment clean and in working order to the proper storage area.

10. Any time chemicals, heat, or glassware are used or whenever dissections are being performed, students will wear laboratory goggles. There will be no exceptions to this rule!

11. Contact lenses should not be worn in the laboratory.

12. Dress properly during a laboratory activity. Long hair, dangling jewelry, and loose or baggy clothing are a hazard in the laboratory. Long hair must be tied back and dangling jewelry and loose or baggy clothing must be secured.

13. Shoes must completely cover the foot. No sandals, Mary Janes, Toms, or open toed shoes allowed.

14. When dissections are conducted or whenever chemicals are in use, all students will wear long pants, Lab coats, and safety glasses

15. Report any accident (spill, breakage, etc.) or injury (cut, burn, etc.) to the instructor immediately, no matter how trivial it may appear.

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I _____(student's name)

have read and agree to follow all of the safety rules set forth in this contract. I realize that I must obey these rules to insure my own safety, and that of my fellow students and instructors. I will cooperate to the fullest extent with my instructor and fellow students to maintain a safe lab environment. I will also closely follow the oral and written instructions provided by the instructor. I am aware that any violation of this safety contract or misbehavior on my part, may result in my being removed from the laboratory, detention, receiving a failing grade, and/or dismissal from the course.

_____ (sign and date)