

Bossier Parish Community College
Master Syllabus

Course Prefix and Number: BLGY 231L

Credit Hours: 1

Course Title: Human Anatomy and Physiology II Lab

Course Prerequisites: Registration in or credit for BLGY231 or equivalent

Textbook: BPCC Lab Manual

Course Description: This course includes laboratory exercises to accompany and reinforce BLGY 231 lecture concepts. Withdrawal from lecture mandates withdrawal from lab.

Learning Outcomes

At the end of the course, the student will

- A. demonstrate the ability to comprehend and implement standard precautions and safety practices in the laboratory;
- B. identify major anatomical structures and answer questions about the physiology of the endocrine, cardiovascular, respiratory, urinary, and reproductive systems;
- C. utilize laboratory equipment and supplies to perform specified laboratory procedures, collect, analyze, and interpret results with respect to normal physiological functions and values; and,
- D. demonstrate the ability to locate and apply information and critical thinking skills to analyze and solve problems involving functions of the human body.

To achieve the learning outcomes, the student will

- 1. practice safety and standard precautions in the laboratory. (A)
- 2. convert units of measure in the metric system. (C)
- 3. identify the major parts of a microscope and demonstrate proper technique in the care and handling of this instrument. (C)
- 4. apply the concept of homeostasis using glucometry and glucose metabolism with classroom laptops. (D)
- 5. demonstrate the ability to utilize data to construct and interpret a graph (C)
- 6. identify the major endocrine glands by location, gross and microscopic anatomy and hormones secreted (B)
- 7. correlate selected hormones with their actions, target organs, and glands that produce them, and apply to interactive lab activities that demonstrate their actions using classroom laptops. (B,C,D)
- 8. identify blood components using a light microscope and laboratory models. (B,C)
- 9. identify the general function of the major components of blood (B)
- 10. perform and analyze a complete blood count and calculate red blood cell indices. (B,C,D)

11. relate results of the complete blood count and red blood cell indices to normal values, anemia, and pathophysiology of anemia and other major blood disorders. (B,C,D)
12. determine blood type and explain the significance during transfusion (B,C,D)
13. identify the major anatomical structures of the heart and the primary function of each structure. (B,C)
14. perform electrocardiogram. (B,C,D)
15. identify the P, QRS, and T waves on a Lead II electrocardiogram, and recognize a normal recording. (B,C,D)
16. identify the location of the major arteries and veins of the body. (B,C)
17. compare the microscopic and gross structure of arteries and veins. (B,C,)
18. trace the pathway of blood circulation in the human body. (B)
19. demonstrate the ability to take blood pressure measurements, and analyze and interpret the results. (B,C,D)
20. identify the structure of the upper respiratory system. (B,C,D)
21. identify the parts of a model of a larynx. (B,C,D)
22. identify the structures of the lower respiratory system. (B,C,D)
23. complete assigned interactive exercises on classroom laptops covering pulmonary physiology and relate results to normal values and pathophysiology of different categories of respiratory diseases. (B,C,D)
24. identify the components of the urinary system. (B,C,D)
25. identify the parts of a nephron. (B,C,D)
26. identify the parts of a kidney. (B,C,D)
27. perform clinical urinalysis and relate results to normal and abnormal kidney function. (B,C,D)
28. determine the respiratory and metabolic systems effects on Acid-Base Balance, and the urinary and respiratory systems compensatory mechanisms using classroom laptops. (B,C,D)
29. identify the major digestive organs, and major polymers and monomers that are involved in digestive physiology. (B,C,D)
30. determine the blood lipid levels and interpret and apply results (B,C,D)
31. identify the anatomical structures of the male and female reproductive system. (B,C,D)
32. complete assigned laboratory reports. (B,C,D)
33. complete assigned case studies by integrating knowledge from the course and research online. (B,C,D)
34. utilize formulas to calculate physiologic values. (C)

Minimum Course Requirements

In order to receive a grade of “C” the student must earn 70% of the total possible points for the courses and achieve all of the following course requirements.

- minimum 60% on laboratory safety quiz

- demonstrate laboratory safety and standard precautions throughout labs
- minimum average 60% on all assessments

Course Grading Scale:

- A- 90% or more of total possible points and meet all of the minimum course requirements.
- B- 80% or more of total possible points and meet all of the minimum course requirements.
- C- 70% or more of total possible points and meet all of the minimum course requirements.
- D- 60% or more of total possible points and meet all of the minimum course requirements.
- F- less than 60% of total possible points or failure to meet one or more of the minimum course requirements.

Attendance Policy: The college attendance policy is available at <http://www.bpcc.edu/catalog/current/academicpolicies.html>

Course Fees: This course is accompanied with an additional non-refundable fee for supplemental materials, laboratory supplies, certification exams and/or clinical fees.

Nondiscrimination Statement

Bossier Parish Community College does not discriminate on the basis of race, color, national origin, gender, age, religion, qualified disability, marital status, veteran's status, or sexual orientation in admission to its programs, services, or activities, in access to them, in treatment of individuals, or in any aspect of its operations. Bossier Parish Community College does not discriminate in its hiring or employment practices.

COORDINATOR FOR SECTION 504 AND ADA

Angie Cao, Student and Disability Services Specialist

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Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

Equity/Compliance Coordinator

Teri Bashara, Director of Human Resources

Human Resources Office, A-105

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Bossier City, LA 71111

Phone: 318-678-6056

Hours: 8:00 a.m.-4:30 p.m. Monday - Friday, excluding holidays and weekends.

Revised by T. Breeland-Southam 4/22