

**Bossier Parish Community College**  
**Master Syllabus**

**Course Prefix and Number:** BLGY 230L

Credit Hours: 1

**Course Title:** Human Anatomy and Physiology Laboratory

**Course Prerequisites:** Concurrent or previous credit in BLGY 230

**Textbook:** Anatomy and Physiology Lab Manual, BPCC

**Course Description:**

Laboratory exercises to reinforce lecture topics through the use of microscopes, microscope slides, posters, diagrams, and models with an emphasis on critical thinking and application. Withdrawal from lecture mandates withdrawal from lab.

**Learning Outcomes:**

At the end of this course, the student will

- A. demonstrate a basic knowledge of the use and care of a light microscope;
- B. demonstrate knowledge of the location and structure of organs, tissues, and cells of the integumentary, skeletal, muscular, and nervous systems; and
- C. utilize laboratory equipment and supplies to perform laboratory procedures in order to collect, analyze, and interpret results with respect to normal physiological values.

To achieve the learning outcomes, the student will

- 1. describe the anatomic planes and sections of the body. (B)
- 2. identify the major regions of the body, using proper anatomic terminology. (B)
- 3. utilize directional terminology to describe the relationship between body structures. (B)
- 4. locate major body cavities. (B)
- 5. identify the subdivisions of the abdominal region. (B)
- 6. perform experiments to demonstrate homeostasis. (C)
- 7. exhibit knowledge of names and functions of the parts of the microscope. (A)
- 8. demonstrate use of the microscope with scanning, low, and high power magnification. (A)
- 9. utilize terms related to microscopy. (A)
- 10. exhibit knowledge of the metric system and convert units of measure within the metric system. (C)
- 11. utilize a light microscope to view representative human cells. (A,B)
- 12. identify the major structural components of a generalized human cell. (A,B)
- 13. describe the major functions of the cell parts. (A,B)
- 14. describe the processes of mitosis. (A,B)

15. demonstrate knowledge of enzyme activity. (C)
16. determine the cellular effects of tonicity on diffusion and osmosis. (A,C)
17. identify the major structures of the skin. (B)
18. examine the layers of the skin utilizing a light microscope and identify the type of tissue that forms each layer. (A,B)
19. name the functions of structures associated with the skin. (B)
20. classify bones by shape. (B)
21. identify and label compact and spongy bone tissue using a light microscope and models. (A,B)
22. identify the parts of a long bone. (B)
23. name the bones and features of the adult and fetal skulls. (B)
24. identify the bones and features of the axial and appendicular skeleton. (B)
25. identify the components of a typical synovial joint. (B)
26. identify the movements of joints. (B)
27. compare the three types of muscle tissue using the light microscope. (A,B)
28. identify major muscles of the body. (B)
29. complete assigned interactive exercises on muscle physiology to better understand basic physiology of muscle contractions. (C)
30. identify nerve tissue with the microscope. (A,B)
31. identify the parts of a neuron. (B)
32. identify the components of the spinal cord on a cross-sectioned slide using the light microscope and on lab models. (A,B)
33. identify features of the brain. (B)
34. identify structures of the ear. (B)
35. identify structures of the eye. (B)

## 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.

- competency in basic use of the microscope
- minimum average score of 60% on lab practical tests

## Course Grading Scale:

A- 90% or more of the total points possible for the semester and meet all minimum course requirements

B- 80% or more of the total points possible for the semester and meet all minimum course requirements

C- 70% or more of the total points possible for the semester and meet all minimum course requirements

D- 60% or more of the total points possible for the semester and meet all minimum course requirements

F- less than 60% of the total points possible for the semester and/or failure to meet one or more of the minimum course requirements

**Attendance Policy:** The college attendance policy is available at <http://catalog.bpcc.edu/content.php?catoid=5&navoid=369#class-attendance>

**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**

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### COORDINATOR FOR SECTION 504 AND ADA

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Reviewed: R Johnson, April 2021