



BAKER COLLEGE
STUDENT LEARNING OUTCOMES

VET1010A Anatomy & Physiology for Veterinary Technology

4 Semester Credit Hours

Student Learning Outcomes and Enabling Objectives

1. Demonstrate working knowledge of medical terminology, including pronunciation and spelling of terms related to all body systems.
 - a. Summarize the terms anatomy and physiology.
 - b. Identify common prefixes, word roots, and suffixes associated with all body systems.
 - c. Identify positional terminology.
2. Analyze the fundamentals of chemistry necessary for life.
 - a. Differentiate between organic and inorganic compounds.
 - b. Differentiate between types of chemical bonds.
 - c. Correlate the relationship between acids, bases, and pH.
 - d. Describe the unique properties of the water molecule.
 - e. Describe the properties and actions of enzymes.
3. Characterize the anatomy and physiology of the cell.
 - a. Characterize the structure and function of cellular organelles.
 - b. Explain the structure and role of the DNA molecule.
 - c. Differentiate between the membrane processes of the cell.
 - d. Compare and contrast mitosis and meiosis.
4. Characterize the structure and function of epithelial, connective, nervous, muscle tissue.
 - a. Identify the unique characteristics of each tissue.
 - b. Relate the structure of each tissue to location and function.
5. Summarize the structure and function of the cardiovascular system.
 - a. Explain the flow of blood through the circulatory system.
 - b. Identify gross and microscopic anatomical components and their physiology within the cardiovascular system.
 - c. Correlate the electrical conduction through the heart with an ECG tracing.
 - d. Identify the principal arteries and veins of domestic species.
 - e. Explain the cardiac cycle and relate it to auscultation of heart sounds.
 - f. Characterize the components of portal circulation and its physiology.
6. Summarize the structure and function of the lymphatic system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the lymphatic system.

- c. Describe the circulation of lymph.
 - d. Identify the location of principal lymph nodes and vessels.
- 7. Summarize the structure and function of the respiratory system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the respiratory system.
- 8. Summarize the structure and function of the digestive system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the digestive system.
 - c. Differentiate the anatomy and physiology between common domestic species.
- 9. Summarize the structure and function of the reproductive system.
 - a. Identify gross and microscopic anatomical components of common domestic species (male and female).
 - b. Explain the physiology of the reproductive system.
 - c. Differentiate the anatomical components and physiological processes between common domestic species.
- 10. Summarize the structure and function of the urinary system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the urinary system.
- 11. Summarize the structure and function of the immune system.
 - a. Identify gross and microscopic anatomical components.
 - b. Distinguish between the various types of immunity.
 - c. Examine the different mechanisms by which vaccines confer immunity.
- 12. Summarize the structure and function of the musculoskeletal system.
 - a. Identify gross and microscopic anatomical components of common domestic species.
 - b. Explain the physiology of the musculoskeletal system.
 - c. Relate the structures and functions of the muscular and skeletal systems.
- 13. Summarize the structure and function of the endocrine system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the endocrine system.
- 14. Summarize the structure and function of the neurologic system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the neurologic system.
- 15. Summarize the structure and function of the integumentary system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the integumentary system.
- 16. Summarize the structure and function of the sensory system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the sensory system.
- 17. Summarize the structure and function of the hematopoietic system.
 - a. Identify gross and microscopic anatomical components.
 - b. Explain the physiology of the hematopoietic system.
 - c. Summarize the process of hemostasis.

Big Ideas and Essential Questions

Big Ideas

- Understanding of Anatomy for:
 - Small Animals
 - Large Animals
- Understanding of Physiology for:
 - Small Animals
 - Large Animals
- Scientific terminology

Essential Questions

1. How will students incorporate scientific terminology into their physical exam assessments, diagnostics, and treatments for animals?
 2. What is the difference between normal and abnormal anatomy and physiology?
 3. How does chemistry apply to the physiology of an animal?
 4. How is anatomy and physiology used by the technician in veterinary medicine?
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These SLOs are not approved for experiential credit.

Effective: Fall 2021