



EFFECTIVE: SEPTEMBER 2007
CURRICULUM GUIDELINES

A. Division: **Education** Effective Date: September 2007

B. Department / Program Area: **Science & Technology / Animal Health Technology** Revision New Course

If Revision, Section(s) Revised:
 Date of Previous Revision:
 Date of Current Revision:

C: AHTT 1101 **D: Veterinary Anatomy & Physiology 1** **E: 3**

Subject & Course No.	Descriptive Title	Semester Credits
<p>F: Calendar Description:</p> <p>This course is designed to provide a foundation for veterinary medical language and basic anatomy & physiology. Positional, directional and planes of body and body cavity terminology are also discussed. From the cellular and tissue level to the gross anatomical level, the integumentary, skeletal, muscular, nervous, and digestive systems of both small (canine, feline) and large (bovine, equine, ovine, caprine, porcine and avian) animals are covered.</p>		
<p>G: Allocation of Contact Hours to Type of Instruction / Learning Settings</p> <p>Primary Methods of Instructional Delivery and/or Learning Settings:</p> <p>Lecture / Laboratory</p> <p>Number of Contact Hours: (per week / semester for each descriptor)</p> <p>4 hours/week: 2 hours lecture / 2 hours lab</p> <p>Number of Weeks per Semester:</p> <p>15 weeks</p>	<p>H: Course Prerequisites:</p> <p style="text-align: center;">None</p>	
	<p>I: Course Corequisites:</p> <p style="text-align: center;">None</p>	
	<p>J: Course for which this Course is a Prerequisite</p> <p style="text-align: center;">AHTT 1201</p>	
	<p>K: Maximum Class Size:</p> <p style="text-align: center;">30</p>	
<p>L: PLEASE INDICATE:</p> <p><input type="checkbox"/> Non-Credit</p> <p><input checked="" type="checkbox"/> College Credit Non-Transfer</p> <p><input type="checkbox"/> College Credit Transfer:</p> <p style="text-align: center;">SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bctransferguide.ca)</p>		

M: Course Objectives / Learning Outcomes

Upon completion of Veterinary Anatomy & Physiology 1101, the student will be able to:

1. Define veterinary medical terminology using word analysis.
2. Describe anatomical structures, including dental, using appropriate terminology, and specify the locations of various organs and systems.
3. Use a compound microscope, and describe and identify cell and tissue types in the body.
4. Define and understand the principles of histology.
5. Identify and recognize common terms used for various species and their anatomical parts.
6. Describe the components and functions of the integumentary system.
7. Understand comparative anatomy & physiology of the integument and related structures.
8. Identify the components of the feline skeleton, and describe the structure and growth of long bones.
9. Describe the types and range of movements of skeletal articulations (joints), and fracture terminology.
10. Describe the location, structure, and functions of the major muscles in the feline.
11. Describe the gross and microanatomy of muscle tissue, and the physiology of muscle contraction.
12. Describe the components and functions of the nervous system.
13. Describe the anatomy of a neuron and the mechanism of a nerve impulse.
14. Describe the components and functions of the digestive system, distinguishing between the monogastric and ruminant alimentary canals.
15. Describe the processes of digestion, absorption and metabolism.

N: Course Content:

The major topics in the course include the following:

1. Veterinary medical terminology
 - component parts and pronunciation of medical words
 - meaning of basic combining forms, prefixes and suffixes
 - use of component parts to build medical words
2. The structure and function of cells:
 - structure and function of cell membranes and various cytoplasmic and nuclear components
 - an explanation of the major cellular processes and their significance to the cell
 - using a binocular microscope, differentiate between cellular organelles and inclusion bodies
 - understand the methodology of preparing histological sections, including techniques for fixation and sample submission
3. Comparative anatomy and physiology beyond the cellular level:
 - the structure and function of the four tissue types
 - the major body systems, their major organs, and the general function of each organ
 - directional terms as they relate to various species
 - dental anatomy and physiology
5. The integumentary system:
 - vocabulary, root words, suffixes, prefixes, abbreviations and pronunciation of terms
 - the identification and description of the components of the epidermis and the dermis.
 - composition of hair follicles, muscles, specialized glands and cells
 - functions of the skin and terminology for skin reactions and pathological disease
6. The skeletal system:
 - vocabulary, root words, suffixes, prefixes, abbreviations and pronunciation of terms
 - the structure, physiology, and function of bone
 - the changes in skeletal structure during growth and development (ossification)
 - detailed comparative anatomy of the skeletal and accessory structures
 - axial, appendicular and visceral skeleton and joints of various species

7. The muscular system:

- vocabulary, root words, suffixes, prefixes, abbreviations and pronunciation of terms
- the gross anatomy of muscles and microscopic anatomy of muscle tissue
- differentiation between skeletal, cardiac and smooth muscles and their anatomical locations
- the identification of the principal feline muscles and muscle groups and their attachments
- the physiology of muscle contraction

8. The digestive system:

- vocabulary, root words, suffixes, prefixes, abbreviations and pronunciation of terms
- identify and describe major structures and functions of the alimentary canal of various species
- distinguish between monogastric and ruminant digestive systems
- describe the process of digestion, absorption and metabolism

9. The nervous system:

- vocabulary, root words, suffixes, prefixes, abbreviations and pronunciation of terms
- understand the structure and function of the central, peripheral and autonomic nervous systems
- describe the anatomy of a neuron and the mechanism of a nerve impulse
- locate and name major nerves of the peripheral nervous system

O: Methods of Instruction

This course involves two hours of classroom instruction per week and two hours of laboratory activity per week.

P: Textbooks and Materials to be Purchased by Students

Cochran, P.E., 2004, *Laboratory Manual for Comparative Veterinary Anatomy and Physiology*. Thomson Delmar Learning, 2nd ed.

Colville, T.P. & Bassert, J.M., 2002, *Clinical Anatomy & Physiology for Veterinary Technicians*. Mosby. 1st ed.

Romich, J.A., 2006, *An Illustrated Guide to Veterinary Medical Terminology*. Thomson Delmar Learning, 2nd ed.

For reference only:

Sirois, M., 2004, *Principles and Practice of Veterinary Technology*. Mosby, 2nd ed.

Q: Means of Assessment

TYPE OF EVALUATION	PERCENTAGE (total 100%)
Quiz # 1	10
Quiz # 2	10
Quiz # 3	10
Laboratory Assignments & Projects	30
Preparation, Participation & Attendance	10
Final Examination	30
Grades:	A+ 95-100, A 90-94, A- 85-89, B+ 80-84, B 75-79, B- 70-74,
	C+ 65-69, C 60-64, C- 55-59, P 50-54, F 0-49.

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

None

Course Designer(s): Diane Boyle, DVM / Pauline Chow,
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Education Council / Curriculum Committee Representative

Dean / Director: Dr. Sandy Vanderburgh

Registrar

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