EFFECTIVE: JANUARY, 2008

CURRICULUM GUIDELINES

A. Division: **Education**

Effective Date: January, 2008

If Revision, Section(s) Revised:
Date of Previous Revision/T/TT1 1 Tf10.07ate of

E: 4

Subject & Course No.	Descriptive Title	Semester Credits

F: Calendar Description:

This course includes further development of veterinary terminology skills. In addition, the anatomy and physiology of the cardiovascular, haematologic, lymphatic and immune, respiratory, urinary, endocrine, reproductive, and sensory systems of both small (canine, feline) and large (bovine, equine, ovine, caprine, etailed review of small and large animal anatomical and physiological systems.

G: Allocation of Contact Hours to Type of Instruction / Learning Settings

Primary Methods of Instructional Delivery and/or Learning Settings:

H: Course Prerequisites:

AHTT 1101

I: Course Corequisites:

None

J: Course for which this Course is a Prerequisite

None

M: Course Objectives / Learning Outcomes:

Upon completion of Veterinary Anatomy & Physiology 1201, the student will be able to:

1. Describe the structure and function of the cardiovascular, haematologic, lymphatic and immune systems.

2. Understand the pathway of electrical conductivity through the heart.

3. Understand the foetal circulatory system and the changes occurring at parturition.

3. Describe the structure and function of the respiratory system and describe the transport of gases in the blood.

4. Describe the structure and function of the urinary system and explain the process by which the kidney produces urine.

5. Describe the structure and function of the endocrine system and understand the feedback mechanism that controls release of endocrine hormones.

6. Describe the structure and function of the male and female reproductive systems.

7. Understand the estrous cycle and factors influencing its stages.

8. Recognize the type of uteri and understand types of placentation in various species.

9. Identify the major structures and functions of the eye and ear.

10. Understand the mechanism of sight.

11. Understand the mechanism of hearing.

N: Course Content:

The major topics in the course include the following:

1. The cardiovascular system
- terminology
- the major structures and functions of the cardiovascular system
- names and positions of cardiac valves, and types of blood vessels
- pulmonary, cardiac, systemic and foetal circulatory systems
- the pathway of electrical conductivity through the heart and how an ECG is produced

2. The lymphatic system
- terminology
- the major structures and functions of the lymphatic system
- the relationship between the haematologic and lymphatic systems for immunocompetence

3. The respiratory system:
- terminology
- the major structures and functions of the respiratory system
- comparative anatomy of the lungs of different species, including avian air sacs and pneumatic bones

4. The urinary system:
- terminology
- the structure, function and physiology of the kidney

7. The endocrine system:
- terminology
- the structure and function of hormones secreted by endocrine glands and their target organs
- the basic functions of hormones produced by the endocrine glands
- normal glucose metabolism and regulation

8. The reproductive system:
- terminology
- the major structures and functions of the male and female reproductive systems
- the relationship between the endocrine an reproductive systems, and how endocrine hormones affect production of reproductive hormones and cells
- the estrous cycle of various species and factors influencing its stages
- the type of uteri and types of placentation in various species
- clinical signs of impending parturition

9. The sensory system:
- terminology
- the structure and function of the eye and its components, as well as visual physiology
- the structure and function of the ear and its components, as well as auditory physiology

O: Methods of Instruction:

This course involves three hours of classroom instruction and three 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 & PHYSIOLOGY*. Thomson Delmar Learning, 2nd ed.

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

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