

# **APBI 311 - ANIMAL PHYSIOLOGY – I (2009/10)**

## **INSTRUCTOR**

Prof. R. Rajamahendran  
MacMillan Building  
Room#: 229  
2357 Main Mall  
Phone: (604) 822 4784  
Email: raja@interchange.ubc.ca  
*Faculty of Land and Food Systems*  
*The University of British Columbia*

## **COURSE DESCRIPTION**

**This course is designed to study the organization, function and regulation of various organ systems that are involved in life support and homeostasis in domesticated animals. The nervous, endocrine, cardiovascular, respiratory, urinary, muscular and skeletal systems are discussed.**

## **LEARNING**

**This course is intended to promote understanding of the basic principles and concepts of physiology of various organ systems in the body that are involved in life support and homeostasis. Students are expected to list major anatomical structures, relate them to specific functions and define the pathway of regulation for specific physiological process in various organ systems involved in life support and homeostasis. More importantly, students are able to draw on their conceptual understanding of physiology and integrate information from individual systems to analyze and explain the changes of a specific physiological process during different physiological states and new veterinary/medical developments affecting physiological processes.**

## **SUBJECT MATTER**

1. Introduction to anatomy and physiology.
2. Structure and functions of the cell.
3. Skeletal system and physiology of bone.
4. Anatomy and physiology of nervous system.
5. Endocrinology.
6. Circulatory system and physiology of circulation.
7. The respiratory system.
8. The urinary system.
9. Muscular system and physiology of muscle.
10. Sense organs.

## **TESTING AND COMPUTATION**

- |   |             |
|---|-------------|
| 1. Quiz exam every other week (15 min duration). Exam can cover any lecture, reading or lab materials since the previous quiz ----- | 10%         |
| 2. Mid term exam (1 hr). Objective/subjective test covering all materials of first half of the course -----                         | 20%         |
| 3. Laboratory reports and laboratory exam -----   | 20%         |
| 4. Final exam (3 hr). Comprehensive exam at the end of the course --  | 50%         |
| <b>TOTAL -----</b>  | <b>100%</b> |