

**ANSC 142**  
**Anatomy and Physiology of Domestic Animals**

M&T 11:30-12:45 (CRN 60079) & 1:00-2:15 (CRN 60266)  
Palanakila 102

**INSTRUCTOR:** Ross Langston, PhD  
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**EFFECTIVE DATE:** Fall, 2015

**WINDWARD COMMUNITY COLLEGE MISSION STATEMENT**

*Windward Community College offers innovative programs in the arts and sciences and opportunities to gain knowledge and understanding of Hawai'i and its unique heritage. With a special commitment to support the access and educational needs of Native Hawaiians, we provide O'ahu's Ko'olau region and beyond with liberal arts, career and lifelong learning in a supportive and challenging environment — inspiring students to excellence.*

**CATALOG DESCRIPTION**

Introduction to the anatomy and physiology of domestic animals. Compares the anatomy and function of major body systems for the cat, dog and horse, with lesser emphasis on birds, reptiles and amphibians. This course is intended for students entering veterinary technology, veterinary assisting or other animal-related fields (3 hrs. lect). Prerequisite: Credit for or registration in ANSC 142L.

**Activities Required at Scheduled Times Other Than Class Times:** Exams must be taken at testing center outside of normal class time.

**STUDENT LEARNING OUTCOMES**

Upon successful completion of ANSC 142, the student should be able to:

- 1) Discuss the chemical building blocks of major biological molecules.
- 2) Describe the link between cells, tissues, organs, and organ systems.
- 3) Contrast the structure and function of major body systems (e.g., skeletal, circulatory, respiratory, and reproductive) among companion animals and selected livestock species.
- 4) Explain how disease and disorders disrupt the homeostasis of each of the above body systems and discuss how common veterinary medical treatments are used to restore homeostasis.

## COURSE CONTENT

**Concepts and Topics** The student will describe and integrate basic biological principles and define basic biological terms presented in lecture, required texts, and other instructional materials. These principles include the following areas:

- Chemistry of living organisms
- Biological macromolecules
- Cellular basis of life
- Membrane transport
- Cellular division
- Tissues
- Homeostasis
- Integumentary System: Skin, hair, nails and hooves
- Skeletal system: Bones, joints, and joint movements
- Muscular system: Origins, insertions, and actions
- Nervous System: Major divisions
- Endocrine System: Major hormones and their effects
- Circulatory System: The Heart, Blood, and Blood Vessels
- Respiratory System: Anatomy and Physiology of Respiration
- Digestive System and Metabolism
- Urinary System
- Reproductive system
- Pregnancy and parturition

## COURSE TASKS

- 1) Complete assigned readings prior to lecture.
- 2) Attend weekly lectures
- 3) Participate in-class discussions
- 4) Complete weekly quizzes
- 5) Complete 3 proctored examinations at an approved UH testing center
- 6) Complete assigned class projects

## ASSESSMENT TASKS AND GRADING

**EXAMINATIONS** (600 points total-200 points for each exam). The student will take THREE exams (non-cumulative) at the WCC testing center to demonstrate knowledge and understanding of information presented in the lectures, lecture outlines, text readings, and study guide activities.

**Exams must be taken at the WCC Testing center, or another approved UH location. The exam MUST be completed by 5:00 PM on the day of the deadline.** You will need to bring a driver's license or other approved state ID to the testing center in order to take the exam. They will be timed (typically one minute/question) and may consist of multiple-choice, short answer, or essay questions. You will be allowed to take the exam one time only.

**QUIZZES** (100 points- 10 points for each quiz). The student will take 12 online quizzes which will cover material from the lecture and reading. **Quizzes may be taken from home, but they MUST be taken by the indicated deadline (typically 11:00 PM each Friday).** Quizzes cannot be made up for any reason, including network problems (if the quizzes are taken at home). You will be allowed THREE attempts for each quiz. Only the highest grade will be saved. The

lowest two quiz grades will be dropped at the end of the semester. As with exams, quizzes will be timed (typically 1 min per question, depending on difficulty). Quizzes may be taken open-book, but be warned that if you do not study beforehand you will not be able to complete the quiz before the deadline lapses.

**CLASS ASSIGNMENTS** (100 points total). Each student will complete an assignment on selected topics from the course. The topics and guidelines for this assignment will be posted on the course website under “Announcements” two weeks before the assignment is due.

**ATTENDANCE & CLASS PARTICIPATION** (100 points). All students are expected to attend class regularly and be prepared for all class discussions and activities. Students are allowed TWO absences without penalty. Additional absences will result in a 5-point deduction for each absence. Students who are tardy to class or are not adequately prepared to participate in class discussions (as demonstrated by <70% performance on in-class clicker questions or practice quizzes) will also receive a deduction in class participation points.

### **METHOD OF GRADING**

The assignment of points will be according to the following:

Exams	600 points
Quizzes	100 points
Assignments	100 points
<u>Attendance &amp; Participation</u>	<u>100 points</u>
<b>TOTAL</b>	<b>900 points</b>

### **GRADING SCALE**

<b>Total Points</b>	<b>Percentage Points</b>	<b>Grade</b>
806-900	90-100	A
716-805	80-89	B
626-715	70-79	C
536-625	60-69	D
<536	0- 59	F

Grades may be curved at my discretion; however, you should use the above grading scale to evaluate your performance throughout the class. If you miss an examination because of an illness or legitimate emergency, you must contact me **within 48 hours** to arrange a time to take a make-up exam. I will request that you present evidence of the illness or emergency that caused you to miss the exam. If you miss an exam for any other reason, you will not be permitted to take a make-up exam, thus failing to receive any points for the missed exam. While make-up exams will cover the same content as a missed exam, the exam format and questions may be different. No retests will be given for any reason. **Please also note that “N” grades are not given for this course.**

### **ACADEMIC DISHONESTY**

**Students involved in academic dishonesty will receive an "F" grade for the course.**

Academic dishonesty includes cheating on exams and plagiarism. See pages 14-15 of the 2013-2015 course catalog for a description of the College’s policies concerning academic dishonesty.

## LEARNING RESOURCES

**Textbook:** Colville, T. and J.M. Bassert. 2008. Clinical anatomy and physiology for veterinary technicians. Mosby Inc. St. Louis, MO. ISBN: 978-0-323-04685-5

**ANSC 142 Lecture Outlines:** Available on the laulima website.

<https://laulima.hawaii.edu/portal>

### Additional Information

#### STUDENT RESPONSIBILITIES

You are expected to attend lectures, participate in all course activities, and complete all examinations and course assignments on time. In addition, you are expected to check your UH email address daily for announcements about the course. Please be considerate of other students by turning off any cell phones or beepers during class. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced in-class or on the course website. It is your responsibility to be informed of these changes. It is also your responsibility to be informed about deadlines critical to making registration changes (e.g., last day for making an official withdrawal).

#### HOW TO SUCCEED IN THIS CLASS

Although you will be given lecture outlines, you will not succeed in this class without viewing the lectures and taking detailed notes on the corresponding material in the textbook. Merely reading the chapter will not suffice. Science courses at WCC generally require a minimum of two to three hours of independent study time for each hour in class. It is your responsibility to allocate the appropriate amount of time needed for study and be realistic about all personal and professional commitments that may cut into your study time.

As part of your studies, you will need to understand a veritable *mountain* of medical and anatomical terms, most of which will probably be foreign to you. Many students find it helpful to enroll in HLTH 125 (Survey of Medical Terminology) at the same time as ANSC 142, as there is some repetition in the material covered. In this course, most important vocabulary words appear in **boldface** throughout your textbook. One way to learn these vocabulary words is to make flash cards to quiz yourself. Answering the matching and fill-in-the-blank questions located in the back of each text chapter can also be a helpful way to learn new vocabulary. Be warned: Merely knowing the *definitions* of vocabulary words will be of little use if you do not know how the anatomy of the structures they represent.

In addition to vocabulary, you will be expected to have a detailed understanding of the mechanisms regulating mammalian body systems. In many cases, these systems are regulated by negative feedback loops. **Knowledge of negative feedback mechanisms is absolutely crucial to understanding how the body maintains homeostasis.** Your instructor will highlight the feedback loops that need to be learned in order to succeed on course exams.

**My #1 Suggestion for success in this class:** Take weekly quizzes EARLY, even if you have not had a chance to properly study for the quiz. This will prevent you from receiving a “zero” score should you forget to take the quiz by the deadline. It will also help you to better direct your studying so you can do better on future attempts for the same quiz. Remember, only your **HIGHEST** score is saved for each quiz. Exams may also be taken early, but you

will only be able to take each exam once. This means you should study diligently before going to the testing center to take the exam.

### **ACCOMODATION FOR STUDENTS WITH DISABILITIES**

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to fully participate in this class, you are encouraged to contact the Disability Specialist Counselor to discuss reasonable accommodations that will help you succeed in this class. Ann Lemke can be reached at 235-7448, [lemke@hawaii.edu](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.

**ANSC 142 Schedule  
FALL, 2015**

**\* Please note this schedule is tentative & subject to change. Any changes will be announced in-class or on the course website!**

Week	Date	Topics	Lect	Text	Assignment Due <b>FRIDAY</b> (5 PM for exams; 11 PM for quizzes and other assignments)
1	8/24 8/25	Course Introduction Intro to Anatomy and Physiology	1	Syll CH 1	None
2	8/31 9/1	Chemistry of Life Biological Molecules	2	CH2	Quiz 1: Intro
3	9/7 9/8	<b>Labor Day- No Class</b> Cellular Anatomy	3	CH3	Quiz 2: Chemistry
4	9/14 9/15	Cellular Processes Tissues	3 4	CH3 CH4	Quiz 3: Cells
5	9/21 9/22	Tissues (Cont'd) <b>Exam I Review</b>	4	CH4	Quiz 4: Tissues
6	9/28 9/29	Integumentary System Axial Skeleton	5 6	CH 5 CH 6	<b>Exam 1: CH 1-4</b>
7	10/5 10/6	Appendicular Skeleton Muscular System	6 7	CH6 CH 7	Quiz 5: Integument
8	10/12 10/13	Blood and Lymph Immunity	8	CH 9	Quiz 6: Skeletal & Muscular Sys
9	10/19 10/20	Cardiovascular System Respiratory System	9 10	CH 8 CH 10	Quiz 7: Blood & Immunity
10	10/26 10/27	Catch up <b>Exam II Review</b>			Quiz 8: CV & Resp
11	11/2 11/3	Digestive System	11	CH 11	<b>Exam 2: CH 5-10</b>
12	11/9 11/10	Nutrients & Metabolism Nervous System	12 13	CH 12 CH 13	Quiz 9: Digestive Sys
13	11/16 11/17	Nervous System Sense Organs	13 14	CH 13 CH 14	Quiz 10: Metabolism
14	11/23 11/24	Endocrine System Urinary System	15 16	CH 15 CH 16	Quiz 11: NS & Special Senses
15	11/30 12/1	Male and Female Reproductive System Pregnancy, Development, & Lactation	17 18	CH 17 CH 18	Quiz 12: Endocrine & Urinary
16	12/7 12/8	Catch up <b>Exam III Review</b>			Quiz 13: Repro Sys & Development

- Last day for full refund: 8/28
- Last day to drop without "W" grade: 9/14
- Last day to Withdraw ("W" entered on transcript): 10/30

- **Final Exam:** Due by MONDAY, 12/14 at 5:00 PM