

Animal Science 253

Pharmacology for Veterinary Technicians

CRN: 61140

INSTRUCTOR: Joe Herzog, D.V.M.
OFFICE: Hale Kāko‘o 125 and online via chat or email
OFFICE HOURS: Wed 4:45 to 5:45 and by appt.
TELEPHONE: Personal cell phone (see Laulima Announcements)
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EFFECTIVE DATE: August 21, 2017

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

This course is designed to give students practical knowledge of drugs used in veterinary medicine. 1) The common veterinary drugs will be taught in detail; 2) Clinical calculations for proper drug dosing and I.V. fluid administration will be emphasized. Topics include drug classification, methods of action, calculations, administration, effects and side effects. This course also includes a discussion of client education, drug safety, and federal regulations governing the purchase and storage of controlled drugs. Upon successful completion, students will be able to properly calculate, dispense and administer medications, and recognize adverse reactions. This course is intended for students entering veterinary technology, veterinary assisting, or other animal-related fields (3 credit hours – online lecture).

Prerequisite: Credit for or registration in ANSC 151/151L, HLTH 125 and MATH 101.

Activities Required at Scheduled Times Other Than Class Times:

There is no laboratory.

STUDENT LEARNING OUTCOMES

Upon successful completion of ANSC 253, the student should be able to:

- 1) Recognize groups of veterinary drugs, their mechanisms & actions, and clinically relevant side effects.
- 2) Correctly interpret a veterinarian’s pharmacy orders.
- 3) Accurately calculate, dispense, and administer the correct form and dose of a medication.
- 4) Describe the safe and effective manner in which vaccines must be administered.

- 6) Explain federal and state regulatory guidelines for drug purchase, storage, administration, withdrawal, disposal and inventory control.
- 7) Accurately communicate drug information and dosing instructions to clients in order to maximize compliance and therapeutic effects.

COURSE CONTENT

Concepts or Topics

The student will describe and integrate basic pharmacological principles and define basic pharmacological terms presented in lecture, required texts, and other instructional materials.

COURSE REQUIREMENTS

- 1) Regular class attendance is required. Stay current with Laulima course Modules.
- 2) Complete assigned readings and course assignments.
- 3) Participate in class discussions and activities.
- 4) Complete quizzes, assignments and examinations.

ASSESSMENT TASKS AND GRADING

EXAMINATIONS (300 points total-100 points for each exam). The student will take three computer-based exams to demonstrate knowledge and understanding of information presented in the lectures, assignments, and text readings. Exams will be available only at the Windward Community College Testing Center or other U. HI – approved testing centers. Exams are timed, closed-book and 50 questions in length. A student will be allowed to take each exam **ONE TIME ONLY**. Students who fail to take an exam by the deadline date and time will receive a zero score on that exam. The exam due date/time will not be extended. The final is Exam #3 and is comprehensive/cumulative. A study guide will be published prior to each exam.

Each of the three exams must be taken at an approved U. of HI Testing Center. If you plan to take an exam at a campus other than WCC, please alert the instructor immediately!

WCC Testing Center in Hale La‘akea (Library Learning Commons), Room 228.

➔ Always call to confirm hours of operation. ⬅

Phone: (808) 235-7498

Fall Semester Hours

Monday: 8:00am to 6:00pm
Tuesday: 8:00am to 6:00pm
Wednesday: 8:00am to 8:00pm
Thursday: 8:00am to 8:00pm
Friday: 8:00am to 4:00pm

QUIZZES (260 points total; 20 points for each quiz). Fifteen quizzes – one a week - will be offered. This will allow each student to demonstrate knowledge and understanding of information presented in the lectures, online activities, and text readings. Quizzes are timed, open-book and will be available online via Laulima from any location. The quizzes will be

opportunity to take each quiz three times. For each quiz, the attempt that yields the highest score will be the one used for grading. Quizzes must be submitted by 11:00 PM each Sunday. Students who fail to submit a quiz by the deadline will receive a zero score on that quiz. Quizzes will not be reissued.

ASSIGNMENTS: Calculations, Homework (100 points): ANSC attendance requirements apply; the opportunities for these additional point credits will consist of assignments during the semester.

METHOD OF GRADING:

The assignment of points will be according to the following:

Exams	300 points
Quizzes	260 points
Other Assignments	100 points
TOTAL	660 points

GRADING SCALE:

Total Points	Percentage Points	Grade
591-660	90-100	A
525-590	80-89	B
459-524	70-79	C
391-458	60-69	D
<390	0-59	F

Grades may be curved at the instructor's discretion; however, the students should use the above grading scale to evaluate their performance throughout the class. If you miss an examination because of an illness or legitimate emergency, you must contact the instructor **within 48 hours** to arrange a time to take a make-up exam. The instructor may request that the student present evidence of the illness or emergency that caused the student to miss the exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. If the student misses an exam for any other reason, the student may be prohibited from taking a make-up exam, thus failing to receive any points for the missed exam. **No retests will be given for any reason.**

ACADEMIC HONESTY:

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

Academic dishonesty includes cheating on exams and plagiarism. See the 2015-2017 course catalog for a description of the College's policies concerning academic dishonesty.

LEARNING RESOURCES

Textbook: Romich, J.A. 2010. Fundamentals of Pharmacology for Veterinary Technicians, second edition. Delmar Cengage Learning, Clifton Park, NY. 716 pp. ISBN-13: 978-1-4354-2600-9. Also ISBN-10: 1-4354-2600-2.

CD-ROM: Provided with new textbooks. Also available at one WCC library computer and one WCC Math Lab computer. This Studyware disc works only with Microsoft Windows operating systems. The disc contains games and exercises that can help to reinforce your learning and memorization.

Face-to-face meetings/Review Sessions: Students are encouraged to seek assistance during the instructor's office hours. Also, questions can be submitted by email at any time.

The campus Math Lab: The WCC Math Lab is located in the Library Learning Commons, Hale La'akea, room 220. Knowledgeable and friendly tutors at the Math Lab will help you to complete your homework and study for tests. Consult the Math Lab for hours of availability.

Laulima: Your instructor has created a Laulima website to accompany this course. This website contains lecture outlines, copies of course forms, the syllabus, and links to on-line learning resources. Students enrolled in ANSC 253 are automatically enrolled in the ANSC 253 Laulima website. To access, go to <https://laulima.hawaii.edu/portal>. Login using your UH username and password; then click on ANSC 253.

Other resources will be available on-line.

ADDITIONAL INFORMATION

STUDENT RESPONSIBILITIES

The student is expected to visit the on-line venue regularly, participate in all course activities, and complete all examinations and course assignments on time. Any changes in the course schedule, such as examination dates, deadlines, etc., will be announced ahead of time on the course website. It is the student's responsibility to be informed about deadlines critical to making registration changes (e.g., last day for making an official withdrawal). Please check the official WCC Academic Calendar.

HOW TO SUCCEED IN THIS CLASS

Although you can access course materials whenever Laulima is available, you will not succeed in this class without reviewing 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 of class time. You should expect to **devote at least 6 to 10 hours of study for this 3-credit course each week** of the semester. It is your responsibility to allocate the appropriate amount of time needed to study. Be realistic about all personal and professional commitments that may cut into your study time.

vocabulary words appear in **boldface** throughout your textbook. One way to learn these vocabulary words and to learn the various pharmaceutical agents is to make flash cards so you can quiz yourself. Answering the review questions located at the end of the chapter is a helpful way to learn new vocabulary and evaluate your comprehension of important concepts.

Since some of this course content is online, you need basic computer skills and a working understanding of Lulima.

Be sure that you have reliable internet access. Know that several computer centers on the WCC campus are available for your use.

You will cover a lot of material in this course. It moves along at a brisk pace and will be one of the more challenging courses in the Vet. Tech. curriculum. Do not fall behind. Although it is an online course, you must devote time to this class on a regular basis. If you wait until exam time to cram, you might not succeed. You will find that the 3 M's are quite important: math, memorization and multiple choice. If you struggle with any of these three M's, know that your instructor is available to help. You just need to ask.

ACCOMMODATION FOR STUDENTS WITH SPECIAL ABILITIES

If you have a special physical, sensory, health, cognitive, or mental health ability 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, or you may stop by Hale 'Ākoakoa 213 for more information.

Animal Science 253 Fall Semester 2017

Week	Date	Topics	Text Reading
1	8/21	Course Introduction	Syllabus
		Narcotics	CH 7, 196 - 211
2	8/28	Anti-inflammatory Drugs	CH 16
		Overview of drugs used in anesthesia and nervous system disorders	CH 7
3	9/4	Holiday – no class	
		Clinical Calculations	App G, I, J

4	9/11	Systems of Measurement	CH 6
		Tranquilizers, barbiturates and opioids; Euthanasia	App K
5	9/18	Fluid therapy agents and ER drugs	CH 19
		Fluid therapy calculations/I.V. infusion rates and CRI	CH 19
6	9/25	Drug dosage calculations; CRI	
		Exam #1 - covers Wk 1 through Wk 5 material	
7	10/2	Drugs used in cardiovascular disorders	CH 8
		Drugs used in respiratory system disorders	CH 9
8	10/9	Urinary System Drugs	CH 12
		Prescriptions, Package inserts, Compounding	CH 5
9	10/16	Antibiotics	CH 14
		Antifungals and Antivirals	CH 14
10	10/23	Antiparasitic	CH 15
		Drugs used in skin disorders	CH 17
11	10/30	Exam #2 - covers Wk 6 through Wk 10 material	
		Drugs Affecting Muscles	CH 13
12	11/6	Drugs used in endocrine and reproductive disorders	CH 10
		Drugs used in GI disorders	CH 11
13	11/13	Drugs used in ophthalmic and otic disorders	CH 18
		Blood-modifying and antineoplastic drugs	CH 20; App H and App O
14	11/20	Vaccines - small animals, exotic pets	CH 21
		Vaccines - large animals	CH 21

15	11/27	Behavior Modifiers	CH 22
		Herbs; Nutraceuticals	CH 23
16	12/4	Review and prep for final exam	App P
	12/11	Take Exam #3 during final exam period	

Cumulative and comprehensive Final Exam (Exam #3), with emphasis on material from Wk 11 through Wk 15: During the final exam period, between 12/11/17 and 12/15/17, at an approved U. of Hawai'i Testing Center.