Diagnostic Imaging for Veterinary Technicians

ANSC 252
CRN: 64004
Tuesday 10:00-12:45

INSTRUCTOR:	Sam Craddock, RVT
OFFICE:	Hale Na'auao 121
OFFICE HOURS:	Tues: 1:00-2:15
TELEPHONE:	808-271-7883 or 236-9107
EMAIL:	scraddoc@hawaii.edu
EFFECTIVE DATE:	Summer, 2015 (May 26-Jul 16)

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

ANSC 252: This course covers the nature and use of x-ray technology in veterinary technology. Students are also given an overview of alternative imaging techniques (ultrasound, CT scans, and digital radiography) as well as an introduction to the radiography of large animals and exotics. (3 hours lecture)

Pre-Requisite(s): Admission into the Veterinary Technology program. Students are required to show proof of current health insurance and sign a liability waiver. *Co-Requisite(s):* Concurrent enrollment in ANSC 252/252L.

STUDENT LEARNING OUTCOMES

Upon successful completion of ANSC 252, the student should be able to:

- Describe the uses and functioning of various types of medical imaging equipment.
- Implement and observe recommended radiation safety measures.
- Evaluate radiographic images for proper radiographic technique and patient positioning.
- Explain the clinical uses of alternative imaging technologies.

COURSE TASKS

ANSC 252

1) Participate in class.
2) Complete assigned readings prior to class.
3) Be prepared for quizzes each class.

Concepts or 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:

Review of Skeletal and Soft Anatomy	Radiographic Technique Evaluation
ID of anatomical structures from radiographs	Technique Charts
Radiation Safety	Quality Control
OSHA and state regulations	Radiographic Artifacts
Physics of X-Ray Production	Patient Positioning
Anatomy of an X-Ray Machine	Procedures for Dx of Canine Hip Dysplasia (OFA & PENN-HIP)
Exposure Factors	Use of Radiographic Contrast Agents
Radiographic Quality	Large Animal Radiography
Film & Screen Types	Avian & Exotic Radiography
Film Processing	Alternative Imaging Techniques
	Digital Radiography

ASSESSMENT TASKS AND GRADING

ANSC 252

EXAMINATIONS 100 points - The student will take a final exam to demonstrate knowledge and understanding of information presented in the lectures, lab activities, and text readings. Final exam will cover all topics from the semester

Quizzes (60 points total, 10 for each quiz) The student will complete 6 scheduled quizzes, from the reading and materials presented in class.

ATTENDANCE: (40 points) Attendance is mandatory, unexcused absences will result in a deduction of points.

ASSIGNMENTS (100 points – 50 for each assignment). The student will complete two take home assignments throughout the semester. These assignments will help with understanding of information presented in the lectures, lab activities, and text readings.

METHOD OF GRADING:

Exams	100 points
Quizzes	60 points
Assignments	100 points
Attendance	40 points
TOTAL	**300 points**

Total Points	Percentage Points	Grade
269-300	90-100	A
239-268	80-89	B
209-238	70-79	C
179-208	60-69	D
<178	0- 59	F

Students who behave in a reckless, inhumane, or unsafe manner will receive an "F" grade and be barred from attending future classes.

Please note: to continue on in VETT, you must receive a C or better in both 252 and 252L

ACADEMIC DISHONESTY

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

Academic dishonesty includes cheating on exams and plagiarism. See the course catalog and Vet Tech Student Handbook for a description of the College's policies concerning academic dishonesty.

LEARNING RESOURCES

Textbook: Lavin, Lisa 2006. Lavin's Radiography in Veterinary Technology. 4th ed. Saunders Elsevier Publishing. St. Louis, MO. 378 pp. ISBN: 1-4160-3189-8

McCurnin's Clinical Textbook for Veterinary Technicians. Bassert, Joanna M, and McCurnin, Dennis M. 8th Edition, Saunders Elsevier, St. Louis, MO

ADDITIONAL INFORMATION

STUDENT RESPONSIBILITIES

The student is expected to attend all labs and participate in all course activities. Please be considerate to other students by turning off cell phones during class. Any changes in the course schedule, such as lecture topics, assignment deadlines, etc., will be announced ahead of time on the course Laulima 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).

ACCOMODATION FOR STUDENTS WITH DISABLITIES

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, or you may stop by Hale 'Akoakoa 213 for more information.

STUDENT SAFETY

This course includes a substantial "hands-on" laboratory component in which students may be exposed to a variety of potential hazards including exposure to X-Ray radiation and caustic chemicals and risk of animal bites and scratches. Students enrolled in ANSC 252 are required to show proof of current health insurance and sign a liability waiver during the first week of class. All students are required to wear appropriate clinical attire (personal dosimeter, uniform scrubs, black scrub pants, and close-toed sneakers) *to each class*. Students who are dressed inappropriately will be barred from participating in lab activities and will receive a "zero" grade for that day's class participation grade. **Because exposure to X-Ray radiation poses a significant risk to a developing embryo or fetus, students who are pregnant should not take this course.** Students who become pregnant during the course may request an "N" grade from their instructor.

ANSC 252 and ANSC 252L Schedule

	Lecture	**Wed Lab**	**Thu Lab**
Week 1	5/26 Expectations, intro to radiology	5/27 Machine operation, use of lab time	5/28 Machine operation, use of lab time
Week 2	6/2 Quiz 1 Radiation safety Soft tissue radiographs	6/3 Soft tissue	6/4 Soft tissue
Week 3	6/9 Quiz 2 Radiographic quality, Image receptors and film processing Radiographing extremities	6/10 Soft tissue Extremities	6/11 *King Kamehameha Day – no class*
Week 4	6/16 Quiz 3 - Assignment 1 due Technique evaluation Skull radiographs (HHS kids visit)	6/17 Dental radiographs	6/18 Dental radiographs
Week 5	6/23 Quiz 4 Special procedures Artifacts and errors	6/24 Soft tissue, extremities, skull, OFA	6/25 Soft tissue, extremities, skull, OFA
Week 6	6/30 Quiz 5 Alternative imaging Large animal and exotics	7/1 Skills practice	7/2 Skills practice
Week 7	7/7 Quiz 6 – Assignment 2 due Spine radiographs, review	7/8 Skills practice	7/9 Skills practice
Week 8	7/14 Final Exam	7/15 Portfolio due Clean annex	7/16 Portfolio due Clean annex