

Diagnostic Imaging for Veterinary Technicians

ANSC 252

CRN: 60074

Tuesday 10:00-12:00

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|------------------------|--------------------------|
| INSTRUCTOR: | Sam Geiling, RVT |
| OFFICE: | Hale Kako'o 128 |
| OFFICE HOURS: | Tues: 12:00-1:00 |
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| EFFECTIVE DATE: | Summer, 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

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.
- 4) Complete take-home assignment and final exam.

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:

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

EXAMINATIONS 120 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, 15 for each quiz) The student will complete 4 scheduled quizzes, from the reading and materials presented in class.

ATTENDANCE: (20 points) Attendance is mandatory, unexcused absences will result in a deduction of points.

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

METHOD OF GRADING:

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|--------------|-------------------|
| Exams | 120 points |
| Quizzes | 60 points |
| Assignments | 100 points |
| Attendance | 20 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****

LEARNING RESOURCES

Lavin's Radiography in Veterinary Technology. Brown, Marg and Lois, 2014; 5th ed. Saunders Elsevier Publishing. St. Louis, MO. ISBN: 978-1-4557-2280-8

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 lectures 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 Lualima website. This is a very short semester, so students are expected to spend considerable time outside of class studying and preparing, in order to master the material.

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.

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

ANSC 252 and ANSC 252L Schedule

| | Lecture | Lab |
|------------------|--|--|
| Week 1 | <u>5/23</u> CH 1-4, 16-17 Intro, Safety, Positioning | <u>Quiz 1</u> Thorax/Abdomen |
| Week 2 | <u>5/30</u> → <u>Quiz 1</u> - CH 5 & 9 Differentiate Film from Digital | <u>Quiz 2</u> Skull, Vertebrae |
| Week 3 | <u>6/06</u> → <u>Quiz 2</u> - CH 6-8 Producing, Optimizing, Processing the Image | <u>Quiz 3</u> Forelimb |
| Week 4 | <u>6/13</u> → <u>Quiz 3</u> - CH 11-15 Other Imaging Modalities <i>McCurnin Assignment DUE</i> | <u>Quiz 4</u> Pelvis |
| Week 5 | <u>6/20</u> → <u>Quiz 4</u> - CH 25-27 Special Procedures, Equine, Avian & Exotics | <u>Quiz 5</u> Pelvic Limb <i>Lab Notebook & Assignment DUE</i> |
| Week 6 | <u>6/27</u> → Final Exam | Final Practicum |