UNIVERSITY of HAWAIʻI
WINDWARD COMMUNITY COLLEGE
Ke Kulanui Kaiāulu o ke Koʻolau

ANSC 252: Diagnostic Imaging for Veterinary Technicians

Summer 2026

3 Credits | CRN 61003

M: 9:00-10:45am

Palanakila 102

About Windward Community College

Mission Statement

ʻO keia ka wā kūpono e hoʻonui ai ka ʻike me ka hoʻomaopopo i kō Hawaiʻi mau hoʻoilina waiwai. Aia nō hoʻi ma ke Kulanui Kaiāulu o ke Koʻolau nā papahana hou o nā ʻike ʻake akamai a me nā hana noʻeau. Me ke kuleana koʻikoʻi e hoʻohiki ke Kulanui e kākoʻo a e hoʻokumu i ala e hiki kē kōkua i ka hoʻonui ʻike a nā kānaka maoli. Na mākou nō e hoʻolako, kākoʻo a paipai i nā Koʻolau a kō Oʻahu aʻe me nā hana noʻeau ākea, ka hoʻonaʻauao ʻoihana a me ka hoʻonui ʻike ma ke kaiāulu—hōʻaʻano a e hoʻoulu i nā haumāna i ka poʻokela.

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

ʻĀina

Windward Community College is located in the ahupuaʻa of Kāneʻohe and Heʻeʻia in the moku of Koʻolaupoko on the island of Oʻahu. Both ahupuaʻa are directly connected to the moʻo ʻōlelo of Pāpa and Wākea, who are seen as the ancestors of the Hawaiian nation. The campus sits beneath the puʻu of Keahiakahoe, which is also connected to many moʻo ʻōlelo of this ʻāina. Because wind names and rain names are associated with specific ʻāina, the rain name of Kāneʻohe is known as the ʻĀpuakea and the rain name of Heʻeʻia is the Ulumano.

Instructor Information

How to Contact Your Instructor

Matthew Tsuda

Office: Imiloa 104

Office Hours: M 11:00-12:00pm

Email: mttsuda@hawaii.edu

Veterinary Technology

Alternate Contact Information

If you are unable to contact the instructor, have questions that your instructor cannot answer, or for any other issues, please contact the Academic Affairs Office:

- Location: Alakaʻi 121
- Phone: (808) 235-7422

Contingency Plan

If there is an outage, weather situation, or family emergency on my end, I will do my best to find a way to communicate an update as soon as possible about my return to the course. Mahalo in advance for your understanding and I hope you will do the same.

Course Format & Structure

This is a 10-week face-to-face synchronous course.

Participation Verification

Campuses are required by federal regulations to verify the participation of students in their classes. In accordance with Executive Policy 7.209, all students in the University of Hawaiʻi system are required to establish "participation" to ensure that they are not dropped from their class(es). Effective Fall 2021, students who fail to participate by the late registration period for a class will be administratively dropped from that class. Students may also be dropped from dependent prerequisite and/or corequisite classes if both courses do not establish participation.

Course Information

Catalog Description

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).

Student Learning Outcomes

Upon successful completion of ANSC 252, the student will know how to:

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

Course Materials

Required

No additional textbooks are required for this course. All testable resources will be provided to you physically or digitally.

Lamakū Learning Management System (https://lamaku.hawaii.edu/d2l/home)

Learn about the Hawaiian meaning of the word “lamakū”: Lamakū Pronunciation, Meaning, and Importance.

- UHCC Lamakū Student Resources (how-to videos)
    - Contact UH ITS for 24/7 Lamakū assistance.
- Keeping Accessibility and UDL in Mind
    - If you find any course content that needs remediation and/or updating, please kindly share and I will immediately work to make the content accessible.
- Lamakū courses will appear 5 days before the first day for the academic term and will become inactive (no longer be available to access) 3 weeks after the end of the term. Be sure to save any coursework you may need from Lamakū *during* the term.
- Lamakū automatically logs you out *if it does not detect activity for three hours*. A warning message will appear, notifying you of the lack of activity. Activity is defined as clicking a button in Lamakū, such as "Save Draft" or "Next" (in a test), clicking on a course tab, or taking an action that sends information to the server.

Other Technology

D2L Brightspace, the parent company of Lamakū, recommends users choose the latest versions of Google Chrome, Mozilla Firefox, Microsoft Edge, or Apple Safari as their internet browser.

We recommend that students update their internet browser at the start of each term, search how to allow pop-up windows, adjust their cookies, and clear device history. Also, fully restart your computer and/or device from time-to-time to optimize performance.

Review the privacy/security policies before using the technologies we will be using in this class. Contact me if you would like to discuss the use of alternate options or technologies.

- Google Drive is used in this course to organize files and make them accessible. Your UH email must be used to access all files; all requests from non-UH emails will be ignored.
- Google Docs is used for some files required for assignments like templates, rubrics, etc. Although you do not necessarily need to edit any Google Doc files, you may be using this extensively on your own to create your case study projects or edit an existing template. Accessibility rules are the same as Google Drive in general.
- Kahoot! is an online quiz program which will contain several practice quizzes and exams for the semester. You do not need an account to play any Kahoot games. (accessibility statement, privacy policy)

Grading Policy

1. **Late Submissions** - If you miss an assignment due to a **serious illness or legitimate emergency**, you **must** contact the instructor within **24 hours** to discuss making up assignments. You may need to provide documentation for evidence of emergency or illness.
2. **Spelling** – Due to the importance of spelling in a medical setting, any spelling error may be marked as incorrect. This is especially true for critical terminologies.
3. **Wrong file submission policy** – *It is the student's responsibility to ensure that the correct file was uploaded. Submissions of wrong files will be categorized as a late assignment.*
4. **Corrupted file submission policy** – *It is the student's responsibility to ensure that a working file was uploaded. Submissions of corrupted files will be categorized as a late assignment.*
5. **Final Exam Score:** You must receive a 70% or higher on the final exam in order to pass the entire course. If you receive less than 70% on the final exam, your course grade will default to your final exam grade. (example: if you have a C grade but scored a 55% on the final, your final grade will drop to an F by default)
6. **Total Minimum Assignment Completion** - You must complete and submit at least 75% of assignments for this course. Submission of less than 75% of assignment will result in a 5% overall grade reduction.

Assessment, Tasks, and Grading

WORKSHEET: 30 points – There is one worksheet that must be submitted by the due date. This worksheet can be answered using excerpts from the McCurnin's textbook (willl be provided digitally.) The physical worksheet will be provided at the beginning of the semester and can also be downloaded on Lamaku. This must be submitted in-person.

QUIZZES: 50 points – A total of five quizzes must be taken at the Testing Center. You may take these quizzes early so long as they are taken before the due date. No quiz correction assignments will be offered.

EXAM REVIEWS: 40 points – Students are expected to complete reviews prior to each exam. Each student will write **20** questions with the correct answers from the chapters for the upcoming exam and post it to Lamaku and the designated Google Drive folder. No late submissions will be accepted.

EXAMS: 150 points – There are two exams worth 50 and 100 points. The final exam is cumulative. **Receiving a score lower than 70% on the final exam will result in a failing grade for the entire course.**

TOTAL MINIMUM ASSIGNMENT COMPLETION: - For this course, your final grade will be reduced by 5% if two or more assignments are not submitted by the due date.

Academic Integrity

- Work submitted by a student must be the student's own work. The work of others should be explicitly marked, such as through the use of quotes or summarizing with reference to the original author.
- Refer to Vet Tech Student Handbook for all policies regarding academic dishonesty. Actions that are involved within this policy include but are not limited to:
  - Sharing answers on assignments that are not considered group assignments.
  - Informing classmates of quiz and exam content.
  - Viewing other classmates' papers or talking during quizzes and exams.
  - Using any form of unapproved notes during a quiz or exam (paper notes, phone, smartwatch, laptop, etc.)
- Please note that all suspected actions will be immediately investigated for legitimacy. This may mean receiving a zero on suspected assignments, discussion with the program director and academic affairs, and scrutinization of assignment content until all parties are proven uninvolved.
- Students will receive a failing grade for plagiarized assignments.
- All cases of academic dishonesty are referred to the Vice Chancellor for Student Affairs.
- Windward CC Student Conduct Information
- UH System Student Conduct Policy EO 7.208
- AI is considered a newer tool that can effectively assist with studying and research. AI may also be used to supplement any projects in this course as a means to edit documents for grammar and semantics. However, **you must be transparent on your productive usage of AI** by indicating how it was used and where (e.g. used to edit for grammar, used to reorganize document sections, used for research purposes, etc.)

Academic and Technical Support

Academic Support

- Windward Community College Library
- Library eResources
- Library Research Units (LRUs)
- Ka Piko Tutoring Services: Math Lab, Speech Lab, Writing Lab, ʻŌlelo Hawaiʻi Lab
- Online Learning at Windward Community College
- STAR Balance

Technical Support

- UH ITS Help Desk: email help@hawaii.edu or call (808) 956-8883 (or 1-800-558-2669) for Lamakū and most technology support. Available 24 hours a day, 7 days a week, including holidays.
- Student Tech Support: email winhelp@hawaii.edu, call (808) 235-7437, or stop by in person at Hale Laʻakea 228. Available Monday–Friday from 8:00 am–4:00 pm.

- Lamakū: Click on the Lamakū Help link in the menu bar at the top of the Lamakū homepage to fill out and submit a question and get your answer via email.
- Information Security for Students

College Policies & Support Services

Your instructor may also provide additional resources in your Lamakū course.

Basic Needs

Basic needs include food and housing, childcare, mental health, financial resources, and transportation. Student basic needs security is critical for ensuring strong academic performance, persistence and graduation, and overall student well-being. If you or someone you know is experiencing basic needs insecurity, please see the UH System Basic Needs.

Disabilities Accommodations Statement

Windward Community College's Disability Student Services Office (WCC-DSSO) is committed to providing equal access to qualified students with disabilities.

If you have a physical, sensory, health, cognitive, or mental health disability that could limit your ability to participate fully in this class, you are encouraged to contact the Disability Specialist Counselor, Roy Inouye, to discuss reasonable accommodations that will help you succeed in this class. The Disabilities Counselor can be reached at (808) 235-7448, wccdsso@hawaii.edu, or stop by the office (Hale Kakoʻo 106) for more information.

Financial Aid

If you are receiving financial aid and are contemplating not completing the course it is highly recommended that you contact the Financial Aid Office at (808) 934-2712 or email them at wccfao@hawaii.edu ***BEFORE*** you withdraw to discuss the impact this decision may have on your financial aid eligibility.

LGBTQ+

The University of Hawaiʻi system and Windward Community College are committed to building an inclusive community that supports and advocates for all students, staff, and faculty. We welcome all members of our campus community to our campuses: transgender, māhū, and people of all gender identities. All members of our campus community deserve a work and educational environment free from harassment or bullying based on their sexual orientation, gender identity, or expression. For more information, see the University of Hawaiʻi Commission on LGBTQ+ Equality. Windward Community College Commissioner: Scott Sutherland, scottjks@hawaii.edu

Mental Health Counseling

Mental Health and Wellness at Windward Community College provides counseling services and activities on campus to support students' life goals as well as their academic goals. Information about services can be found at WCC Mental Health & Wellness.

Student Conduct Code

Windward Community College follows the University of Hawai'i Code of Student Conduct which defines expected conduct for students and specifies those acts subject to University sanctions. Students should familiarize themselves with the Code of Student Conduct since, upon enrollment at Windward Community College, they have placed themselves under the policies and regulations of the University and its duly constituted bodies. The disciplinary authority is exercised through the Office of the Vice Chancellor for Student Affairs. Copies of the Student Conduct Code are available at the Office of the Vice Chancellor for Student Affairs.

TRiO Program

The Federal TRiO Programs are educational opportunity outreach programs designed to motivate and support students from disadvantaged backgrounds. TRiO includes six outreach and support programs targeted to serve and assist low-income, first-generation college students and students with disabilities in progressing through the academic pipeline from middle school to post-baccalaureate programs. Information about services can be found at Windward CC TRiO.

Title IX - Sex Discrimination And Gender-Based Violence Resources

Windward Community College is committed to providing a learning, working, and living environment that promotes personal integrity, civility, and mutual respect and is free of all forms of sex discrimination and gender-based violence, including sexual assault, sexual harassment, gender-based harassment, domestic violence, dating violence, and stalking.

If you or someone you know is experiencing any of these, WCC has staff and resources to support and assist you. To report an incident of sex discrimination or gender-based violence, as well as receive information and support, please contact one of the following:

Desrae Kahale, UH System Confidential Advocate
Phone: (808) 235-7393
Email: advocate@hawaii.edu
Office: Hale Kākoʻo 101

Desrae Kahale, Mental Health Counselor & Confidential Resource
Phone: (808) 235-7393
Email: dkahale3@hawaii.edu
Office: Hale Kākoʻo 101

Mykie E. Menor Ozoa-Aglugub, J.D., Title IX Coordinator
Phone: (808) 235-7468
Email: mozoa@hawaii.edu
Office: Hale Kākoʻo 109

Karen Cho, Deputy Title IX Coordinator
Phone: (808) 235-7404
Email: kcho@hawaii.edu
Office: Hale ʻAlakaʻi 120

As a member of the University faculty, I am required to immediately report any incident of sex discrimination or gender-based violence to the campus Title IX Coordinator. Although the Title IX Coordinator and I cannot guarantee confidentiality, you will still have options about how your case will be handled. My goal is to make sure you are aware of the range of options available to you and have access to the resources and support you need.

For more information regarding sex discrimination and gender-based violence, refer to the University's Title IX resources, and the University's Policy, EP 1.204.

UH Alerts

The UH Alert emergency notification system alerts the university community in the event of a natural, health or civil emergency. The information you provide will only be used in the event of an emergency that impacts the health and safety of the UH community or the closure of whole campuses. It will not be shared with others or used for routine UH communications or announcements. To sign up, visit UH Alerts for more information.

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Week	Date	Lecture Topic	Technical Topic (tested in lab only)	Assignments
1	5/25	N/A, NO CLASS		
2	6/1	BASICS OF X-RAY, X-RAY MACHINE	ABDOMEN & THORAX	
3	6/8	RADIATION SAFETY, RADIOGRAPH SETTINGS	FORELIMBS	**6/10:** QUIZ 1 – BASICS OF X-RAYS, X-RAY MACHINE
4	6/15	OPTIMIZING THE IMAGE, QUALITY CONTROL	SPINE & SKULL	**6/17:** QUIZ 2 – SAFETY, RADIOGRAPH SETTINGS
5	6/22	USING FILM, PROCESSING FILM	PELVIC LIMBS & PENNHIP	**6/24:** QUIZ 3 – OPTIMIZING THE IMAGE, QUALITY CONTROL **6/22:** EXAM 1 REVIEW QUESTIONS
6	6/29	EXAM 1		
7	7/6	DIGITAL IMAGING, SPECIAL PROCEDURES	ANATOMIC IDENTIFICATION	
8	7/13	COMPUTERIZES TOMOGRAPHY, MRI & NUCLEAR MEDICINE		**7/15:** QUIZ 4 – DIGITAL IMAGING, SPECIAL PROCEDURES **7/13:** 252 WORKSHEET
9	7/20	LARGE ANIMAL, EXOTICS		**7/22:** QUIZ 5 – CUMULATIVE **7/20:** EXAM 2 REVIEW QUESTIONS
10	7/27	EXAM 2		