

ANSC 151 Clinical Laboratory Techniques
Number of Credits: 3 (CRN: 62424)
Distance Learning Course

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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

Provides students with the background knowledge needed to perform and interpret laboratory techniques commonly used in veterinary practice. Topics include: commonly used laboratory equipment, hematology, clinical chemistry, urinalysis, internal and external parasitology of companion animal species. Will include a review of the physiology of major body systems and an overview of common diseases seen in veterinary practice. This course is intended for students entering veterinary assisting, veterinary technology or other animal-related fields.

Prerequisite: Credit for ANSC 142 and 142L. Credit for or registration in ANSC 151L.

COURSE CONTENT

- Commonly used laboratory equipment
- Proper collection and handling of laboratory specimens
- Laboratory safety/OSHA regulations and MSDS information
- Hematology
- Blood chemistry analysis
- Urinalysis
- Parasitology: Identification and life cycle of internal and external parasites
- Zoonotic Diseases
- Anatomy and physiology review of the circulatory, respiratory, urinary, digestive endocrine, reproductive systems as related to laboratory diagnostics

COURSE TASKS

- Attend lectures, on time
- Complete assigned readings **prior to** the lectures
- Participate in class discussions
- Complete 10 quizzes
- Complete 3 examinations and 3 Exam Reviews

ASSESSMENT TASKS AND GRADING

CASE STUDY: 50 points – Students will be required to create a case study for the class. The format for the case study will be discussed in class.

QUIZZES: 100 points total – Students will be required to complete weekly quizzes online. No late entries will be accepted. Each quiz is worth 10 points.

LAB MANUAL ASSIGNMENTS: 50 points – Students will complete assigned work from the required textbooks.

EXAMINATIONS: 200 points total – Both exams are worth 100 points each. These are to be taken in the designated testing centers during exam week.

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 you present evidence of the illness or emergency that caused the student to miss the exam. If you miss an exam for any other reason, you may be prohibited from taking a make-up exam, thus failing to receive any points for the missed exam. While make-up exams will cover the same content area as a missed exam, the exam format and specific questions may be different. **No retests will be given for any reason.**

LEARNING RESOURCES

Required Textbooks:

1. Margi Sirois, Laboratory Procedures for Veterinary Technicians, 6th edition, St. Louis, MO, Mosby Inc, 2014. (ISBN: 978-0-323-16930-1) **and** the accompanying Lab Manual (ISBN: 978-0-323-16926-4)
2. Reagan, William, et al. Veterinary Hematology: Atlas of Common Domestic and Non-Domestic Species, 2nd edition, Ames, IA, Wiley-Blackwell, 2008 (ISBN-13: 978-0-8138-2809-1)
3. Bassert, Joanna and Dennis McCurnin, McCurnin's Clinical Textbook for Veterinary Technicians, 8th edition, St Louis, MO, Saunders Elsevier, 2010. (ISBN: 978-1-4160-5700-0)
4. *OPTIONAL:* Voigt, Gregg and Swist, Shannon, Hematology Techniques and Concepts for Veterinary Technicians, 2nd edition, Hooken, NJ, Wiley-Blackwell, 2011. (ISBN: 978-0-8138-1456-

Additional Information

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 WCC course catalog and the WCC Vet Tech Handbook for a description of the University's policies concerning academic dishonesty.

DISABILITIES ACCOMMODATION STATEMENT

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.

HOW TO SUCCEED IN THIS COURSE

- 1) Science courses at WCC generally require a minimum of 3 hours of independent study for **each** hour of class; therefore you should expect to spend **9 hours per week studying OUTSIDE of class** to fully understand the complexities of the wide range of information presented in this class.
- 2) Although you can download the lecture PowerPoint outlines and read the textbook, you will not succeed in this class without attending the lecture and taking notes on the corresponding material in the textbook. You need to **study** this material.
- 3) This class covers a variety of clinical laboratory techniques that requires a good understanding of animal anatomy and physiology. You may need to review your physiology textbook and class notes to fully understand how to use and apply diagnostic laboratory tests.
- 4) Form effective study groups with your classmates. Come prepared, meet on a schedule, change up the format. If you'd like more guidance on study groups, please ask.

LAB ATTIRE, CONDUCT, AND HYGIENE

Because this lab involves the use of hazardous materials, students **MUST** wear close-toed shoes. In addition, some lab activities will require students to wear gloves and safety glasses (provided by the college). **A long-sleeved lab coat is required for ALL labs. Lab coats must be purchased prior to the start of the semester.** Visible jewelry and nail polish/artistry are not allowed in labs. (SEE VETA STUDENT HANDBOOK) Students failing to dress appropriately for lab will not be permitted to participate in laboratory exercises and will be considered absent. Students engaged in conduct that threatens themselves or others in the lab will be refused access to the lab for the remainder of the semester and receive an "F" grade for the course.

LAB SAFETY RULES

- 1) Be familiar with lab safety procedures and take appropriate precautions at all times to insure

the safety of all lab students.

- 2) Follow all instructions carefully, especially when hazardous materials are being used.
- 3) Know the locations of important safety equipment: eyewash, safety shower, fire extinguisher, and first aid kit.
- 4) Report all injuries to the instructor immediately.
- 5) Dress appropriately for lab. Closed-toe shoes are required for ALL labs. Safety glasses and gloves are required for labs utilizing chemicals, bodily fluids, or hot-plates.
- 6) Report any hazardous conditions (e.g. chemical spills or broken glass) to the instructor immediately.
- 7) NO FOOD ALLOWED IN LAB
- 8) Chemicals used in lab may be poisonous, corrosive, or flammable. No chemicals, even those known to be safe, should be ingested or touched with un-gloved hands unless you are specifically directed to do so by your instructor.
- 9) Know how to safely operate all lab equipment and tools (e.g., microscopes, scalpels, and hematology supplies). Safe usage will be demonstrated by your instructor.
- 10) Clean all lab supplies and return them to their proper location before leaving lab.
- 11) Treat all organisms, living or dead, with care and respect. Use gloves when handling dissected specimens.
- 12) Place broken glass, sharps, and dissected specimens in the appropriate receptacles (NOT IN THE TRASH!)
- 13) Unless otherwise instructed, chemical wastes should NOT be disposed of down the drain.
- 14) Human tissues and bodily fluids (e.g., saliva and blood) must be disposed of in appropriate bio-hazard containers (NOT IN THE TRASH!).
- 15) Wash your hands immediately following each lab to reduce the possibility of contamination or infection.

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

Week	Topic
1 (1/8)	Course intro, Urinalysis
2 (1/15)	Urinalysis
3 (1/22)	Urinalysis
4 (1/29)	Urinalysis
5 (2/5)	Hematology
6 (2/12)	Hematology
7 (2/19)	Hematology
8 (2/26)	Hematology
9 (3/5)	Review
10 (3/12)	Practicum 1
11 (3/19)	Spring break
12 (3/26)	Clinical chemistry
13 (4/2)	Clinical chemistry
14 (4/9)	Parasitology
15 (4/16)	Parasitology
16 (4/23)	Cytology
17 (4/30)	Review
18 (5/7)	Final Practicum