

ANSC 258L

1 Credit

Wednesday or Thursday 11:30-2:15

CRN: 60543 or 60544

INSTRUCTOR: Sam Geiling, RVT

OFFICE: Hale Na'auao 121

OFFICE HOURS: T 10:00-1:00 and F 10:00-11:00 (Friday, I will be in Imiloa 103)

TELEPHONE: 236-9107 271-7883

EMAIL: scraddoc@hawaii.edu

EFFECTIVE DATE: Fall 2015

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

A continuation of ANSC 151 and 151L, this course provides students with additional instruction and hands-on experience with laboratory tests commonly used in veterinary practice. Topics include: 1) identification of internal parasites 2) performance and evaluation of microbiologic and serologic tests, 3) collection & evaluation of cytological samples 4) veterinary necropsy procedures. Included in this course is a review of the anatomy and 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. (3 hours laboratory) Co-Requisite(s): ANSC 258

STUDENT LEARNING OUTCOMES

- 1) Properly package, handle and store specimens for laboratory analysis.
- 2) Identify and describe the life cycle of select internal parasites of companion animals, livestock, & exotic species.
- 3) Perform serologic tests.
- 4) Collect, culture, and identify bacteria from animal tissues and perform sensitivity testing.
- 5) Collect and evaluate various cytological specimens including canine vaginal smears.
- 6) Perform a postmortem examination of a non-preserved animal.

COURSE CONTENT

Concepts or Topics

- Laboratory safety
- Sample handling, storage, and preparation
- Use of lab equipment (microscopes, blood analyzers, centrifuges, refractometers)
- Perform microbiology
- Perform immunology
- Perform parasitological procedures
- Understanding how performing these laboratory procedures will assist a veterinarian in the diagnosis in a setting.

COURSE TASKS

- 1) Attend lab at scheduled times, on time and in proper uniform.
- 2) Participate in lab activities.
- 3) Complete two in-class practicums.
- 4) Record results of lab activities in lab notebook.

ASSESSMENT TASKS AND GRADING

LAB ACTIVITIES (100 points). Students are expected to record the results and interpretation of all lab procedures in their laboratory notebook. The format for the notebook will be discussed on the first day of class. The notebook will be collected twice during the semester and evaluated for accuracy, organization and completeness, it will be worth 50 points at each evaluation.

LAB PRACTICUMS (200 points total-100 points for each practicum). The student will take two lab practicums (non-cumulative) to demonstrate knowledge and understanding of information presented in lab activities. Format and material will be discussed in class. There will be no make-up practicums.

ATTENDANCE (50 points): Attendance is mandatory and is worth 50 points towards the final grade. Each student is allowed **one** absence without penalty. Each unexcused absence above one will result in a deduction of 25 points per absence from the student's attendance score. Students with more than three un-excused absences will receive an "F" grade in the class. Because most laboratory sessions require special equipment and preparation, make-up labs will NOT be given.

PARTICIPATION (50 points) Students are required to participate in lab activities, including group work, dissection, and review sessions.

| | |
|----------------------|------------|
| Notebooks | 100 |
| Practicum (2) | 200 |
| Attendance | 50 |
| Participation | 50 |
| Total | 400 |

| Total Points | % points | Grade |
|--------------|----------|----------|
| 358-40 | 90-100 | A |
| 318-357 | 80-89 | B |
| 278-315 | 70-79 | C |
| 238-277 | 60-69 | D |
| <237 | 0-59 | F |

Grades may be curved at the instructor's discretion; however, the student should use the above grading scale to evaluate their performance throughout the class.

LEARNING RESOURCES

Textbooks:

1. Hendrix, Charles and Robinson, Ed, Diagnostic Parasitology for Veterinary Technicians, 4th edition, St. Louis, M Saunders Elsevier, 2012. (ISBN: 978-0-3230-7761-3)

Additional Information

ACADEMIC DISHONESTY

Students involved in academic dishonesty will receive an "F" grade for the course. Academic dishonesty includes cheating and plagiarism. For more information on academic dishonesty, please see the Vet Tech Student Handbook.

LAB ATTIRE, CONDUCT, AND HYGEINE

For the uniform required in the lab, see the Veterinary Technology Program Student Handbook. Because labs often involve working with chemicals or 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). 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.

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.

| Week | Day | Topic |
|-------------|--|--|
| 1 | M 8/24 T 8/25 W 8/26 R 8/27 | Course Intro – Introduction to Microbiology, Equipment & Supplies Micro – Sample Collection & Handling, Staining Specimens (Q1) <i>Review lab rules and topics from ANSC 151L, Intro to microbiology</i> |
| 2 | M 8/31 T 9/1 W 9/2 R 9/3 | Micro – Culture Techniques, Antimicrobial Sensitivity Testing Micro – Additional Testing, Mycology (Q2) <i>Microbiology</i> |
| 3 | M 9/7 T 9/8 W 9/9 R 9/10 | LABOR DAY – NO CLASS Micro – Review (Q3) <i>Microbiology</i> |
| 4 | M 9/14 T 9/15 W 9/16 R 9/17 | ~~Microbiology Exam~~ EXAM 1 Basic Principles of Immunology, Common Lab Tests <i>Microbiology & Immunology</i> |
| 5 | M 9/21 T 9/22 W 9/23 R 9/24 | Blood Groups and Immunity, Intradermal & Reference Lab Tests Disorders of the Immune System, Review (Q4) <i>Microbiology & Immunology</i> |
| 6 | M 9/28 T 9/29 W 9/30 R 10/1 | ~~Immunology Exam~~ EXAM 2 Parasitology – Sample Collection and Diagnostic Techniques <i>Microbiology & Immunology</i> Practicum 1 |
| 7 | M 10/5 T 10/6 W 10/7 R 10/8 | Parasites – Ascaroidea, Stroglyoidea, Trichostrongyloidea Parasites – Rhabditoidea, Metastrongyloidea, Trichuroidea (Q5) <i>Parasitology</i> |
| 8 | M 10/12 T 10/13 W 10/14 R 10/15 | Parasites-Oxyuroidea, Spiruroidea, Dracunculoidea, Diactophymoidea Parasites – Filarioidea – Review (Q6) <i>Parasitology</i> |
| 9 | M 10/19 T 10/20 W 10/21 R 10/22 | ~~Nematode Exam~~ EXAM 3 Parasites – Cestodes <i>Parasitology</i> |
| 10 | M 10/26 T 10/27 W 10/28 R 10/29 | Parasites – Cestodes Parasites – Cestodes (Q7) <i>Parasitology</i> |
| 11 | M 11/2 T 11/3 W 11/4 R 11/5 | Parasites – Trematodes Parasites – Trematodes and Acanthocephalans (Q8) <i>Parasitology</i> |
| 12 | M 11/9 T 11/10 W 11/11 R 11/12 | Parasites – Protozoa and Rickettsia Parasites – Protozoa and Rickettsia – Review (Q9) VETERAN'S DAY – NO LAB <i>Parasitology</i> |
| 13 | M 11/16 T 11/17 W 11/18 R 11/19 | ~~Cestode, Trematode, Protozoa, Rickettsia Exam~~ EXAM 4 Parasites – Fleas <i>Parasitology</i> |
| 14 | M 11/23 T 11/24 W 11/25 R 11/26 | Parasites – Lice, Flies, and Mites Parasites – Ticks (Q10) <i>Parasitology</i> THANKSGIVING DAY – NO LAB |

| | | |
|-----------|---------------------------------------|---|
| 15 | M 11/30 T 12/1 W 12/2 R 12/3 | Parasites - Ticks Parasites - Pentasomids, Annelida (Q11) <i>Parasitology</i> |
| 16 | M 12/7 T 12/8 W 12/9 R 12/10 | Review for final exam Review for final exam <i>Parasitology</i> Practicum 2 |

*This is the schedule for both lecture and lab. Lab dates and topics are *italicized*.*

Other important dates:

9/14 last day to drop w/o a W

10/30 last day to drop w a W

11/2 first day of spring registration