

## **ANSC 258L**

1 Credit

Wed 9:30-12:15 or Fri 11:30-2:15

CRN: 61211 or 61212

**INSTRUCTOR:** Sam Geiling, RVT

**OFFICE:** Hale Kako'o 128

**OFFICE HOURS:** Mon 11-1 and Tues 12-3

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**EFFECTIVE DATE:** Fall 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**

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 testing
- Perform immunology testing
- 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, including a necropsy procedure
- 3) Complete final practicum.
- 4) Record results of lab activities in lab notebook.
- 5) Create and present Case Study

## ASSESSMENT TASKS AND GRADING

**ATTENDANCE and PARTICIPATION:** 50 points – Attendance will be taken at the beginning of each class period. Both tardiness and early departure from class are considered forms of absenteeism. Students are ***NOT entitled to any unexcused absences and will be docked 25 points for each absence.*** After the 50 points are lost, the student must meet with the instructor to discuss options for completing the course. If a student has an emergency or is too ill to come to class, the instructor should be notified via email prior to class. A doctor's note or documentation of extenuating circumstances will be required within 48 hours of the absence. For absences due the observance of religious holidays, jury duty, and for calls to active duty, students must confer with the instructor prior to the absence. Students absent from class for any reason are still responsible for all work missed. In the event of severe weather or other emergency, students are expected to check-in via Laulima for instructor updates. Students who stop attending class, but do not formally withdraw, may receive an "F" grade and face financial aid repercussions in future semesters as a result. Because most laboratory sessions require special equipment and preparation, make-up labs will NOT be given. Students are expected to participate the ENTIRE lab period, including performing assigned clean-up duties. Any student who misses clean-up, leaves early, or does not complete all assigned lab activities will have points deducted.

**QUIZZES** (100 points total). Students will take a short (10 min) quiz at the beginning of most labs. The quiz will be based on the material covered in the previous week as well as the reading for the current lab. Quizzes will be in the first 10 minutes of class, you will not receive extra time if you are late. If you are absent for a legitimate excuse, and have proof that is acceptable to the instructor, you will be able to make up the quiz.

**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 .

**CASE STUDY:** (100 points) Students will be required to create a case study for the class. The format for the case study will be discussed in class.

**LAB PRACTICUMS** (100 points total). The student will take two lab practicums (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.

Quizzes (10)	100
Notebooks	100
Practicum (1)	100
Case Study	100
<u>Attendance</u>	<u>50</u>
Total	450

Total Points		Letter
403-450	90-100%	<b>A</b>
358-402	80-89%	<b>B</b>
313-357	70-79%	<b>C</b>
268-312	60-69%	<b>D</b>
<267	0-59%	<b>F</b>

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.

### 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](mailto:lemke@hawaii.edu), or you may stop by Hale 'Akoakoa 213 for more information.*

## LEARNING RESOURCES

### Textbooks:

1. Hendrix, Charles and Robinson, Ed, Diagnostic Parasitology for Veterinary Technicians, 4<sup>th</sup> edition, St. Louis, MO, Saunders Elsevier, 2012. (ISBN: 978-0-3230-7761-3)
2. Margi Sirois, Laboratory Procedures for Veterinary Technicians, 6<sup>th</sup> edition, St. Louis, MO, Mosby Inc, 2014. (ISBN: 978-0-323-16930-1)
3. Geiling, Sam, ANSC 151L Lab Notebook, Windward Community College

## 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.

<b>Week</b>	<b>Day</b>	<b>Topic</b>	<b>Reading</b>
<b>1</b>	T 8/22 W 8/23 F 8/25	Course Intro – Parasitology – Intro, Language, Sample Collection and Diagnostic Techniques <i>Review lab rules and Fecal, Blood smear, UA</i>	Hendrix: Ch 1, 2, 17
<b>2</b>	T 8/29 W 9/30 F 9/1	ASCAROIDEA Micro – Intro, equipment, samples, staining <i>Fecal, Blood smear, UA, Microbiology (staining)</i>	Hendrix: 3, 4 Sirois: Pages 284-289 Sirois: 37-40
<b>3</b>	T 9/5 W 9/6 F 9/8	STRONGYLOIDEA, TRICHOSTRONGYLOIDEA Micro – Culture Techniques and Testing <i>Fecal, Blood smear, UA, Micro staining, culture, tests</i>	Hendrix: 4 Sirois: Pages 289-292 Sirois: 41, 43
<b>4</b>	T 9/12 W 9/13 F 9/15	RHABDITOIDEA Immunology – Intro <i>Fecal, Blood smear, UA, Micro staining, culture, tests</i>	Hendrix: 4 Sirois: Page 292 Sirois: 19
<b>5</b>	T 9/19 W 9/20 R 9/22	METASTRONGYLOIDEA Immunology – Tests <i>Fecal, Blood smear, UA, Micro, SNAP/RIM</i>	Hendrix: 4 Sirois: Pages 292 - 293 Sirois: 20-23
<b>6</b>	T 9/26 W 9/27 F 9/29	TRICHUROIDEA – OXYUROIDEA – SPIUROIDEA – DRACUNCULOIDEA - DIOCTOPHYMOIDEA - FILAROIDEA <i>Fecal, Blood smear, UA, Micro, SNAP/RIM</i>	Hendrix: 4 Sirois: 293-298
<b>7</b>	T 10/3 W 10/4 F 10/6	REVIEW  REVIEW	
<b>8</b>	T 10/10 W 10/11 F 10/13	EXAM 1  PRESENTATIONS	
<b>9</b>	T 10/17 W 10/18 F 10/20	CESTODES Mycology <i>Fecal, Blood smear, UA, Micro</i>	Hendrix: 5, 6 Sirois: Pages 299-306 Sirois: 44
<b>10</b>	T 10/24 W 10/25 F 10/27	CESTODES Blood Typing <i>Fecal, Blood smear, UA, Micro</i>	Hendrix: 5, 6 Sirois: Pages 299-306 Sirois: 21
<b>11</b>	T 10/31 W 11/1 F 11/3	TREMATODES AND ACANTHOCEPHALANS Intradermal Testing <i>Fecal, Blood smear, UA, Micro</i>	Hendrix: 7-9 Sirois: Pages 306-312 Sirois: 22
<b>12</b>	T 11/7 W 11/8 <del>F 11/10</del>	PROTOZOA AND RICKETTSIA Sensitivity Testing <i>Fecal, Blood smear, UA, Micro (Fri Nov 10 – no lab)</i>	Hendrix: 11 Sirois: Pages 313-325 Sirois: 42
<b>13</b>	T 11/14 W 11/15 F 11/17	INSECTS Disorders of the Immune System <i>Fecal, Blood smear, UA, Micro</i>	Hendrix: 12, 13 Sirois: Pages 326-333 Sirois: 24
<b>14</b>	T 11/21 W 11/22 <del>F 11/24</del>	TICKS  <i>Fecal, Blood smear, UA, Micro (Fri Nov 24 – no lab)</i>	Hendrix: 12, 13 Sirois: Pages 333-334
<b>15</b>	T 11/28 W 11/29 F 12/1	MITES  <i>Fecal, Blood smear, UA, Micro</i>	Hendrix: 12, 13 Sirois: Pages 334-337
<b>16</b>	T 12/5 W 12/7 <del>F 12/9</del>	REVIEW <i>Wed Dec 7 is the last day of class</i>	
<b>FINAL</b>			

\*This is the schedule for both lecture and lab. Lab dates and topics are IN CAPS. The schedule is subject to change. Any changes will be announced in class and via Lulima.\*