



EFFECTIVE: JANUARY, 2008
CURRICULUM GUIDELINES

A. Division: **Education** Effective Date: January, 2008

B. Department / Program Area: **Science & Technology** / **Animal Health Technology** Revision New Course

If Revision, Section(s) Revised:
 Date of Previous Revision:
 Date of Current Revision:

C: **AHTT 1202** D: **Veterinary Laboratory Procedures II** E: **3**

Subject & Course No.	Descriptive Title	Semester Credits
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<p>F: Calendar Description:</p> <p>This course will further develop veterinary clinical and laboratory skills, including serum chemistry testing, and tissue and fluid collection and analysis. Cytological techniques and microbiology are reviewed for all relevant species, with the emphasis being on pathogens relevant to companion (small) animals. Included will be a review of the mathematics necessary for success in the laboratory and in test interpretation. The detailed review of veterinary laboratory procedures are also completed in this course.</p>	
<p>G: Allocation of Contact Hours to Type of Instruction / Learning Settings</p> <p>Primary Methods of Instructional Delivery and/or Learning Settings:</p> <p>Lecture/Laboratory</p> <p>Number of Contact Hours: (per week / semester for each descriptor)</p> <p>4 hours/week: 1 hour lecture/3 hours lab</p> <p>Number of Weeks per Semester:</p> <p>15 weeks</p>	<p>H: Course Prerequisites:</p> <p>AHTT 1102</p> <p>I: Course Corequisites:</p> <p>None</p> <p>J: Course for which this Course is a Prerequisite</p> <p>AHTT 1302</p> <p>K: Maximum Class Size:</p> <p>30</p>

L: PLEASE INDICATE:

<input type="checkbox"/>	Non-Credit
<input checked="" type="checkbox"/>	College Credit Non-Transfer
<input type="checkbox"/>	College Credit Transfer:

SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bctransferguide.ca)

M: Course Objectives / Learning Outcomes:

Upon completion of Veterinary Laboratory Procedures II AHTT 1202, the student will be able to:

1. Demonstrate accuracy in performing basic laboratory mathematical calculations.
2. Describe the common canine and feline blood types, and understand the technique for blood typing.
3. Understand the application and methodology of determining serum chemistry profiles and function testing routinely used in veterinary medicine.
4. Demonstrate knowledge of common serological and immunological veterinary testing procedures.
5. Display competency with the collection, handling and preparation of tissue and fluid samples for analysis.
6. Perform a microscopic examination of cytological and spermatozoa samples, with the ability to identify common cell types.
7. Recognize the steps necessary to perform a necropsy, including correct specimen collection techniques.
8. Realize the significance of more common microbiological veterinary pathogens.
9. Apply tissue staining techniques and usage of microbiological culture media to identify microscopic organisms.

N: Course Content:

The major topics in the course include the following:

1. Clinical Pathology Part II:

- canine and feline blood types
- blood typing techniques
- cross matching of blood for transfusion

2. Clinical Pathology Part III:**a. Immunological and serological testing**

- Elisa, ICT, serum agglutination and precipitation tests
- understanding serum protein electrophoresis
- theoretical and practical applications of antibody titres
- in clinic test kits (snap, micro well) for heartworm and FeLV/FIV

b. Whole blood and Serum Chemistry

- sample collection and handling
- record keeping and lab requisition forms
- understanding testing procedures
- quality control
- manual testing

c. Function and specialty testing

- thyroid gland function
- adrenocortical gland function
- glucose homeostasis
- hepatic function testing
- renal function testing

3. Clinical Pathology Part IV:

a. Cytology

- tissue sampling and collection techniques
- preparation and staining
- gross and microscopic tissue and fluid analysis

b. Histopathology

- tissue sample collection and preservation

c. Necropsy

- demonstration and understanding of techniques
- tissue sample collection and handling

4. Microbiology:

- pathogen (bacterial, viral, fungal) growth patterns, morphology, testing techniques and control methods
- sample collection, including use of culture media
- gross colony and microscopic organism evaluation, with coverage of staining techniques
- biochemical analysis
- laboratory safety and quality control
- basics of antibiotic therapy and applications to common veterinary pathogens

O: Methods of Instruction:

This course involves one hour per week of classroom instruction and three hours per week of laboratory activity.

P: Textbooks and Materials to be Purchased by Students:

Foreyt, W.J., 2001, *Veterinary Parasitology Reference Manual*. 5th ed., Blackwell Publishing.

Hendrix, C.M., 2002, *Laboratory Procedures for Veterinary Technicians*. 4th ed., Mosby.

McCurnin, D.M. & Bassert, J.M., 2006, *Clinical Textbook for Veterinary Technicians*. 6th ed., Elsevier.

Q: Means of Assessment:

Written Assignments	10
Laboratory Assignments & Projects	20
Quizzes	10
Midterm	25
Preparation, Participation & Attendance	10
Final Examination	25

**Grades: A+ 95-100, A 90-94, A- 85-89, B+ 80-84, B 75-79, B- 70-74,
C+ 65-69, C 60-64, C- 55-59, P 50-54, F 0-49.**

R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR

No

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Dean / Director: Dr. Sandy Vanderburgh

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