

Course Code: VTT 115**Course Title:** Clinical Pathology II**Department:** Allied Health**Effective Date:** Summer 2026**PCS Code:** 1.2 - Occupational/Technical Instruction**CIP Code:** 01.8301**Repeatability:** 0

Credit Hours

Catalog Notation: 1-3-2**Credit Hour Distribution:**

Lecture: 1

Lab: 3

Clinical: 0

Total: 2

General Course Information

Catalog Description

Proficiency in CBCs, fecal examinations, blood chemistries, urinalysis, abnormal hematology, serology, and cytology.

General Course Objectives

This course is designed as an advanced supplement to the introductory information presented in VTT 114. Students are encouraged to become proficient in hematology procedures and advance on to interpret abnormal samples. New and advanced information is added on hematology, parasitology, immunology, cytology, and urinalysis.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 099	Placement out of CCS 099	Placement out of MAT 072

Prerequisites

Credit in VTT 110, VTT 113, VTT 114, VTT 116, VTT 119, and BIO 111

Admission into the Veterinary Technology program

Methods of Evaluation

3-5 lecture quizzes, 2-4 comprehensive hourly examinations, comprehensive final examination, 8-12 online quizzes, 2-4 comprehensive lab practicals, and 3-5 lab projects.

Instructional Materials and Additional Supplies

Course Manual

Veterinary Technician's Handbook of Laboratory Procedures, Brianne Bellwood, Melissa Andrasik-Catton. 2nd Edition. ISBN: 978-1119672616

Laboratory Urinalysis & Hematology for the Small Animal Practitioner, Carolyn A. Sink, Bernard F. Feldman. ISBN: 978-1893441101 (Optional)

Lab coat or scrub top

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Hematology	1. Accurately recognize abnormal cells within an abnormal blood sample provided for a complete blood count. 2. Accurately complete automated cell counting and blood chemistries. 3. Discuss types of anemia, the clinical symptoms, laboratory findings, and implications of results.	3	15	0
Endoparasites	1. Identify parasite ova using proper testing procedures and techniques. 2. Discuss the following relating to parasites: genus; common name; common hosts; life cycle; clinical symptoms; diagnostic testing procedures; treatments; control including hygiene and prevention; and public health significance. 3. Differentiate the following common parasites: nematodes, cestodes, and protozoa; equine stomach bots; dirofilaria immitis; and blood parasites.	3	6	0
Urinalysis	1. Explain the function of the kidney and the terminology used to describe conditions of the urinary system. 2. Explain collection methods used to obtain a urine sample. 3. Identify the physical properties and interpret the chemical examination of urine. 4. Accurately perform evaluation of urine sediment microscopically.	4	16	0
Serology	1. Compare common in-clinic tests currently on the market, quality control, and the methodology behind these tests. 2. Demonstrate how to perform a heartworm test.	2	2	0
Cytology	1. Explain sampling methods including fine needle aspirations, direct tissue imprints, and fluids and washes. 2. Discuss preparation of samples for shipping to reference lab and evaluation of slides for quality. 3. Explain basic characteristics of benign vs. malignant cells, including a list of criteria for malignancy. 4. Recognize characteristics and identifying factors for degenerating vs. non-degenerative neutrophils. 5. Demonstrate vaginal cytology, including collection of samples, preparation of slides, and recognition of cell type.	3	6	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
15	45	0