COMMON COURSE OUTLINE: Course discipline/number/title: VT 1810: Parasitology

A. CATALOG DESCRIPTION
1. Credits: 2
2. Hours/Week: 3
3. Prerequisites (Course discipline/number): Grade of C or better in all required previous VT courses and required general education classes.
4. Co-requisites (Course discipline/number): None
5. MnTC Goals (if any): NA

This course will introduce the student to the clinical laboratory, microscopes and other equipment, and basic laboratory procedures will be emphasized. Fecal identification techniques, life cycles, nomenclature, modes of transmission, geographical distribution and diseases associated with external parasites of small animals, horses and cattle will be discussed. Internal parasites of domestic animals will be taught and identified in this course. RECOMMENDED ENTRY SKILLS/KNOWLEDGE: High School diploma or GED, Grade of C or better (high school or college level within the last five years) in the following courses: Biology with a lab, Chemistry with a lab, Elementary Algebra of equivalent. Minimum one-year high school typing/keyboarding skills

B. DATE LAST REVISED (Month, year): November, 2006

C. OUTLINE OF MAJOR CONTENT AREAS:
1. Health and safety in the laboratory
2. Maintenance and use of microscope
3. Preparation and preservation of laboratory samples
4. Laboratory equipment maintenance and care
5. Classes of parasites
6. Sample collection
7. Gross examination
8. Laboratory records and quality control
9. Diagnostic procedures
10. Parasitology and public health

D. LEARNING OUTCOMES (GENERAL): The student will be able to:
1. Identify safety and quality control techniques in the laboratory setting.
2. Demonstrate proper use and maintenance of the microscope and laboratory equipment.
3. Lists scientific and common names of parasites.
4. Define and describe lifecycles of various external parasites.
5. Describe clinical signs associated with each parasite.
6. Describe how to identify a parasite infestation.
7. Define treatments and control of external parasite infestations.
8. Define treatments and control of internal parasite infestations.
10. Apply client education techniques in relationship to parasitology.
11. Prepare materials for fecal examination.
12. Explain basic principles of lab safety.
13. Perform identification techniques for external parasites including mites, lice, fleas, flies, and ticks.
14. Perform identification techniques for internal parasites including fecal floatation, fecal sedimentation, direct smears, and centrifugation with flotation.
15. Perform coprologic tests.
17. Perform various laboratory techniques for identification of external and internal parasites.
18. Identify common parasitic forms of nematodes, trematodes, cestodes, and protozoa.

E. LEARNING OUTCOMES (MNTC): NA
F. **METHODS FOR EVALUATION OF STUDENT LEARNING:**
Methods may include any of the following:
1. Laboratory reports and/or quizzes
2. Objective and/or subjective tests
3. Laboratory practical tests
4. Work related experience with skill competency record
5. Course assignments
6. Essay tasks
7. Group work/projects
8. Attendance (especially laboratory attendance)

G. **SPECIAL INFORMATION (if any):**
The initial lab session explains and familiarizes the student with general safety hazards and safety equipment to the lab. During the pre-lab discussion, the hazardous characteristics of any materials used during a lab are discussed. In addition, if the lab involves any potentially infectious or zoonotic material, the students will be instructed on the proper use and disposal. The instructor will direct all students to where necessary protective equipment while working with any hazardous chemicals. A copy of Material Safety Data Sheets for chemicals used is available in the lab.