

Course discipline/number/title: VT 2910: Pharmacology and Diseases for Veterinary Technicians

A. CATALOG DESCRIPTION

1. Credits: 4
2. Hours/Week: 3 hours lecture, 1 lab
3. Prerequisites (Course discipline/number): Grade of C or better in MATH 1026
4. Other requirements: Admission into the Veterinary Technician program
5. MnTC Goals (if any): NA

B. COURSE DESCRIPTION: This course provides background in veterinary pharmacologic principles and management. Topics of focus include: common drug terminology, classifications of drugs, such as antibiotics and anesthetics, and mechanisms of drug action, the diseases common to our domestic species along with the pharmacological agents that are used to treat them. Basic skills and management of the veterinary pharmacy are also covered. **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.

C. DATE LAST REVISED (Month, year): February, 2021

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Common diseases of domestic animals
2. Recognition and handling of veterinary drugs and vaccines
3. Equipment used in dosage calculation and delivery
4. Interpreting drug orders
5. Understanding drug labels and product inserts
6. Maintenance of drug information within patient record systems

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Recognize groups of drugs, mechanism of action, and potential side effects.
2. Review etiology and clinical signs of common diseases of domestic animals.
3. Understand appropriate treatment protocols of common diseases of domestic animals.
4. Demonstrate appropriate routes and methods of drug and vaccine administration.
5. Understand basic pharmacy techniques, such as purchasing and inventory control.
6. Recognize appropriate equipment for proper administration of ordered medications.
7. Read and write proper medical notation used to complete drug labels, orders, and patient records.
8. Use appropriate equipment and techniques to complete a veterinary pharmacy order.
9. Demonstrate the ability to accurately document veterinary drug treatment information in patient records.
10. Understand compliance of federal regulations for the storage, administration, dispensing, and disposal of veterinary drugs.
11. Demonstrate compliance with regulations governing prescription, over-the-counter, and controlled drugs.
12. Prepare medication and administer them by common routes.
13. Monitor therapeutic responses to drug administration.
14. Accurately perform calculations including weights and measures of drugs.

F. LEARNING OUTCOMES (MNTC): NA

G. 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. Work related experience with skill competency record
4. Course assignments
5. Group work/projects
6. Attendance

- H. RCTC CORE OUTCOME(S). This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- I. 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.