Course Information Form (CIF)

Course Code: VTT 215

Course Title: Pharmacology II

Department: Allied Health
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 01.8301
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 1-0-1
Credit Hour Distribution:

Lecture: 1	Lab: 0	Clinical: 0	**Total: 1**

General Course Information

Catalog Description

Uses, mechanisms of action, and secondary effects of drugs commonly administered and dispensed by veterinary technicians. Includes calculating drug dosages and dilutions.

General Course Objectives

Given the generic name or trade name of a commonly used veterinary drug, the student will be able to tell what drug category it belongs to and to describe its use, action, common secondary effects, and contraindications. The student will demonstrate appropriate client education related to the dispensing of these drugs and be able to accurately solve dilution problems and calculate the number of ml, tablets, or capsules to administer or dispense.

Minimum Placement Levels

English	Reading	Math
Placement out of ENG 099	Placement out of CCS 099	None

Prerequisites

Credit in VTT 119, VTT 210, VTT 212, VTT 214, and BIO 123
Admission into the Veterinary Technology program

Methods of Evaluation

8-10 objective quizzes and 2-3 comprehensive exams.

Instructional Materials and Additional Supplies

Plumb's Handbook of Veterinary Drugs, Pocket Edition, Donald Plumb.

Course Content

General Learning Outcomes (GLOs)

- Communication: Students will demonstrate the ability to read, write, listen, and speak effectively.
- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Review Syllabus, VTT 119 Drugs, and Dispensing Math Rules	1. Demonstrate accurate calculation of dosages and dispensing of medication. 2. List the drug category and describe the action, use, and secondary effects of antiseptics, disinfectants, and insecticides commonly used in veterinary medicine.	1	0	0
Antibiotics	1. Evaluate the pharmacological action and use of antimicrobial drugs. 2. Choose terminology associated with antibiotics. 3. Interpret the concept of resistance as it relates to antimicrobial agents. 4. Identify three methods by which veterinarians select a specific antimicrobial agent for the treatment of an infection. 5. Describe the signs and symptoms of the selected side-effects associated with the administration of antimicrobial agents. 6. Explain the role of antimicrobial agents in the food production industry. 7. List the category, trade name(s), spectrum and any special contra-indications, side-effects, or uses when given the generic name of a drug from this unit. 8. State the generic name when given the trade name of a commonly used antibiotic.	1	0	0
Antifungals	1. Explain the two classifications of fungal infections. 2. Utilize terms associated with antifungals. 3. List the symptoms of nephrotoxicity. 4. Determine the cause and general treatment of dermatomycosis. 5. Determine the causes and general treatment of systemic mycoses. 6. Identify the clinical use and pharmacological category when liven a list of antifungal drug names.	1	0	0
Glucocorticoids	1. Identify which endocrine gland produces natural glucocorticoids. 2. Predict what physiologically occurs during the process of inflammation. 3. Discuss the therapeutic uses of glucocorticoids in veterinary medicine today. 4. Discuss the common side effects associated with the administration of glucocorticoids. 5. Explain the purpose and use of aqueous and suspension forms of glucocorticoids. 6. Identify commonly used glucocorticoids and describe the duration of each.	1	0	0
Drugs Affecting the Endocrine System	1. Determine which hormones are produced by the pancreas, thyroid, pituitary, testicles, ovaries, and placenta. 2. Explain the functions of each hormone in the body. 3. Explain the symptoms and treatment of diabetes mellitus. 4. Explain the adverse effects and precautions for use of common therapeutics. 5. Determine the drug category, generic and trade names, clinical uses, adverse reactions, and precautions for use for commonly used drugs in this category.	1.5	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Midterm Exam	1. Calculate the correct number of tablets, capsules, or milliliters to dispense. 2. List the drug category and describe the action, use, and secondary effects of drugs commonly used in veterinary medicine.	1	0	0
External Antiparasitic Products	1. Compare and contrast the signs of toxicity in animals, common mistakes made when using pesticides that can result in toxicity or ineffectiveness, and how to prevent and treat insecticide toxicities, including the action of common pharmaceuticals used for treatment. 2. Decide how to instruct clients on how to use products in this category correctly. 3. Identify products that are effective for treating pets and the environment that are both natural and effective. 4. Interpret the residual activity and relative safety of commonly available insecticides, miticides, and acaricides. 5. Discuss the advantages and disadvantages of the different product forms for use on animals and in the home environment. 6. Explain why many systemically absorbed products will not prevent flea allergy symptoms. 7. Evaluate common drug references contained in ingredient and usage information for pesticides. 8. Define and use terminology pertaining to products in this class.	2	0	0
Autonomic Nervous Systems (ANS)	1. Demonstrate knowledge of basic nervous system physiology. 2. Demonstrate knowledge of drug effects on the autonomic nervous system. 3. List the subcategory, effects, contra-indicators, and clinical use for commonly used drugs in this category.	1.5	0	0
Anthelmintics	1. Demonstrate client education on prevention, detection, and treatment of common parasites. 2. Explain the causes of organophosphate toxicity. 3. Explain the diagnosis, prevention, and treatment of canine and feline heart worm disease. 4. Explain the prevention of canine and feline heart worm disease. 5. List which parasites are protozoa and nematodes, when given the common name. 6. Identify which parasites are tapeworms when given the species name. 7. Explain the terminology related to anthelmintics; recognize common anti-parasitic drugs and describe their clinical use category and precautions for use.	2	0	0
Cardiogenic Drugs	1. Give a brief definition and description of congestive heart failure. 2. Recognize the physiological compensating mechanisms that occur when the animal is in the beginning stages of congestive heart failure. 3. Explain the treatment for congestive heart disease with pharmaceuticals and adjunctive therapies. 4. Identify the common drugs used to treat heart conditions. 5. Explain terms relating to CHF and its treatment.	1.5	0	0

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Antineoplastic Drugs	1. Break down the cell cycle and how it is affected by the administration of antineoplastic drugs. 2. Recognize the major classes of antineoplastic drugs and give examples of drugs in each class. 3. Differentiate the major therapeutic actions and adverse effects of each class of antineoplastics. 4. Illustrate the measures taken to ensure the safe preparation and administration of antineoplastic drugs. 5. Classify six types of cancer and their tissues of origin. 6. Define terms relating to antineoplastics. 7. Explain why the common side-effects for chemotherapy occur. 8. Explain how cancer cells differ from normal cells. 9. Explain the method used for calculating the dosage of antineoplastic drugs.	1.5	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
15	0	0