

V T 83A: PHARMACOLOGY FOR VETERINARY NURSES I

Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2026
Units:	3
Hours:	3 lecture per week (36 total per quarter)
Prerequisite:	V T 61.
Advisory:	Not open to students with credit in V T 83.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable
Formerly:	V T 83

Student Learning Outcomes

- Articulate "The Five Rights" for safe and correct administration of veterinary medications to animal patients
- Apply pharmacokinetic and pharmacodynamic principles to evaluate medication selection, dosing, and expected responses in medications covered for veterinary patients

Description

First in a two-course series to provide students with an introduction to the basic principles of veterinary pharmacology. Students will build on their knowledge of anatomy and physiology and disease to grasp how medications will impact the patient and disease processes. Overview of the actions and interactions of the major classes of medications, with emphasis on common veterinary uses of specific medications. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

Course Objectives

The student will be able to:

1. Identify and describe the basic principles of pharmacokinetics.
2. Identify and describe the basic principles of pharmacodynamics.
3. Describe various dosage forms and routes of administration.
4. Interpret medication prescriptions.
5. Perform medication calculations.
6. Identify the common pharmaceuticals used in veterinary medicine.

Course Content

1. Principles of pharmacokinetics
 - a. Absorption, distribution, biotransformation, elimination
 - b. Bioavailability, partition coefficients and solubility
 - c. Routes of administration
 - d. Species differences
2. Principles of pharmacodynamics

- a. Mechanisms of drug action
 - b. Receptor theory and dose-response relationships
 - c. Therapeutic index; margin of safety
 - d. Antibiotic resistance
 - e. Drug interactions and adverse reactions
3. Dosage forms
 - a. Tablets
 - b. Capsules
 - c. Liquid
 4. Medication orders
 - a. Client patient doctor relationship
 - b. Rights of medication administration
 - c. In-clinic prescriptions orders
 - d. Prescriptions to go home orders
 - e. Filling and labeling prescriptions
 5. Medical calculations
 - a. Dosage calculations
 - b. Dilutions and reconstitution
 - c. Constant rate infusions
 6. Common pharmaceuticals
 - a. Anti-infective medications
 - i. Classification
 - ii. Indications
 - iii. Clinical application
 - iv. Adverse reactions
 - v. Contraindications
 - vi. Nursing considerations
 - b. Anti-inflammatory medications
 - i. Classification
 - ii. Indications
 - iii. Clinical application
 - iv. Adverse reactions
 - v. Contraindications
 - vi. Nursing considerations
 - c. Cardiovascular medications
 - i. Classification
 - ii. Indications
 - iii. Clinical application
 - iv. Adverse reactions
 - v. Contraindications
 - vi. Nursing considerations
 - d. Respiratory medications
 - i. Classification
 - ii. Indications
 - iii. Clinical application
 - iv. Adverse reactions
 - v. Contraindications
 - vi. Nursing considerations

Lab Content

Not applicable.

Special Facilities and/or Equipment

1. Classroom with projection capabilities.
2. Representative veterinary pharmaceuticals for demonstration.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

Assessments
Assignments

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

Lecture
Discussion

Representative Text(s) and Other Materials

Plumb's online veterinary formulary.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

1. Online research of medications
2. Creation of pharmacology "nerd book"

Discipline(s)

Registered Veterinary Technician