



Course Descriptor VTMD313 Veterinary Pharmacology

Proposed Academic Year	2021 - 22	Last Reviewed Academic Year	
Course Code	VTMD313	Course Title	Veterinary Pharmacology
Credit hours	3	Level of study	Undergraduate
College / Centre	CAHS	Department	VTMD
Co-requisites		Pre-requisites	BIOL101

1. COURSE OUTLINE

The course will cover an introduction to pharmacology – Pharmacodynamics/Pharmacokinetics, adverse drug reactions, anesthetics, Sedatives and Analgesics, Non-steroidal anti-inflammatory drugs (NSAIDs), Mineralocorticoids. and Glucocorticoids, Antimicrobial. Drugs, Systematic Therapeutics: Respiratory Cardiovascular, Gastrointestinal, Urinary tract, Skin, and Neurological drugs and Anti-neoplastic therapeutics.

2. AIMS

This course aims to provide students with an understanding and knowledge of clinical pharmacology, toxicology and therapeutic, to practice knowledge. of the treatments of animals, Students will gain information on the mechanisms of various drug actions, that are essential for the remedial uses and safe selection. of remedial chemicals in clinical veterinary exercise, and Students will acquire information of significant therapeutics.

3. LEARNING OUTCOMES, TEACHING, LEARNING and ASSESSMENT METHODS

Learning Outcomes (Definitive)	Teaching and Learning methods (Indicative)	Assessment (Indicative)
Upon successful completion of this course, students will be able to:		
1. Demonstrate an awareness of the aspects of clinical pharmacology & therapeutics. to aid veterinary performance.	Lectures and lab experiments	Exams quizzes Reports
2. Evaluate suitable drug selection for several animal species.	Lectures and lab experiments	Exams quizzes Reports
3. Recognize the aspects of clinical toxicology in relation to veterinary practice .	Lectures and lab experiments	Exams Quizzes Reports
4.		

4. ASSESSMENT WEIGHTING

Assessment	Percentage of final mark (%)
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Assignment	20%
Quizzes	20%
Mid-term Examination	20%
Final Examination	40%
TOTAL	100%

5. ACHIEVING A PASS

Students will achieve **3** credit hours for this course by passing **ALL** of the course assessments [*Quizzes, Mid-term, Final examination**] and achieving a **minimum overall score of 50%**

NB *Ensure that ALL learning outcomes are taken into account

6. COURSE CONTENT (Indicative)

Principles of Pharmacology:

- 1 Veterinary Pharmacology: An Introduction to the Discipline.
- 2 Absorption, Distribution, Metabolism, and Elimination.
- 3 Pharmacokinetics.
- 4 Mechanism of Drug Action and Pharmacokinetics/ Pharmacodynamics Integration in Dosage.
- 5 Principles of Pharmaceutics and Veterinary Dosage Forms.

Drugs Acting on the Autonomic Nervous System:

- 6 Introduction to the Autonomic Nervous System and Autonomic Pharmacology.
- 7 Adrenergic Receptor Agonists and Antagonists.
- 8 Cholinergic Pharmacology: Autonomic Drugs.

Drugs Acting on the Central Nervous System:

- 9 Introduction to Drugs Acting on the Central Nervous System and Principles of Anesthesiology.
- 10 Neuromuscular Blocking Agents.
- 11 Inhalation Anesthetics.
- 12 Injectable Anesthetic Agents.
- 13 Opioid Analgesic Drugs.
- 14 Sedatives and Tranquilizers.
- 15 Local Anesthetics
- 16 Euthanizing Agents
- 17 Anticonvulsant Drugs .
- 18 Drugs Affecting Animal Behavior 416

Antiinflammatory Drugs:

- 19 Histamine, Serotonin, and their Antagonists.
- 20 Analgesic, Antiinflammatory, Antipyretic Drugs

Drugs Acting on the Cardiovascular System:

- 21 Digitalis, Positive Inotropes, and Vasodilation
- 22 Antiarrhythmic Agents

Drugs Affecting Renal Function and Fluid–Electrolyte Balance:

- 23 Principles of Acid–Base Balance: Fluid and Electrolyte Therapy, Blood Substitutes.
- 24 Diuretics and Renal Pharmacology.

Drugs Acting on Blood and Blood Elements: Anticoagulant, Antiplatelet, and Hemostatic Drugs



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Endocrine Pharmacology:

26 Hypothalamic and Pituitary Hormones.

27 Hormones Affecting Reproduction.

28 Thyroid Hormone and Antithyroid Drugs.

29 Glucocorticoids, Mineralocorticoids, and Adrenolytic Drugs

30 Drugs Influencing Glucose Metabolism.

TOTAL HOURS	45
Plus RECOMMENDED INDEPENDENT STUDY HOURS	15
TOTAL COURSE HOURS	60

7. RECOMMENDED REFERENCES

Core text/s:

- Riviere, Jim Edmond and Papich Mark, (Editors) : Veterinary Pharmacology and Therapeutics, 10th Ed. Wiley-Blackwell (2017)..

Library + online resources:

Open Educational Resources: