I. TITLE:

Applied Pharmacology

II. CATALOG DESCRIPTION:

Clinical principles, practices, and procedures involved in the field of veterinary medicine.

Prerequisite: Animal Health Technology students with upper class standing, and CHE 105 & CHE 106 OR CHE 201 & CHE 202

*To receive graduate credit for this course, a student must be admitted to graduate studies prior to registering for the course.*

III. PURPOSE:

To give students a basic overview of pharmacology as it relates to veterinary medicine.

IV. COURSE OBJECTIVES:

A. To teach students basic pharmacological principles.
B. To give students a basic overview of veterinary drugs.
C. To teach appropriate routes and methods of drug administration.
D. To teach correct handling of controlled substances.
E. To help students differentiate between abnormal and normal responses to medication.

V. CONTENT OUTLINE:

A. General Pharmacology
   1. Introduction
   2. Pharmacotherapeutics
   3. Pharmacokinetics
   4. Pharmacodynamics
   5. Drug Names (Chemical and Generic)
B. Routes and Techniques of Drug
   1. Administration
C. Anesthesia
1. Injectable
2. Inhalation
3. Local
D. Pharmaceuticals Affecting the Nervous System
E. Anti-microbials
F. Anti-parasitic Drugs
G. Antiinflammatories
   1. Steroidal
   2. Antisteroidal
H. Respiratory Drugs
I. Renal and Urinary Tract Drugs
J. Cardiovascular Drugs
K. Gastrointestinal Drugs
L. Ophthalmic and Optic Drugs

VI. **INSTRUCTIONAL ACTIVITIES:**

A. Lectures
B. Labs
C. Periodic quizzes (announced and unannounced)
D. Periodic examinations (announced)
E. Comprehensive final exam
F. Research papers
G. A 3-5 minute presentation on a pharmacological topic

VII. **FIELD AND CLINICAL EXPERIENCES:**

None

VIII. **RESOURCES:**

A. Veterinary periodicals
B. *Veterinary Drug Handbook* by Plumb

IX. **GRADING PROCEDURES:**

Grades will be based on exams, quizzes, participation, knowledge, attendance, and research papers to be assigned at the instructor’s discretion. The final grade will be determined by dividing the total number of points possible by the number of points earned.

Grading Scale:
90 – 100 = A
80 – 89  = B
70 – 79  = C
60 – 69  = D
Below 60 = E
X. **ATTENDANCE POLICY:**

Please refer to the most current copy of the Murray State University’s Undergraduate Bulletin and Graduate Bulletin.

XI. **ACADEMIC HONESTY POLICY:**

(Adopted by the MSU Board of Regents)

Cheating, plagiarism (submitting another person’s material as one’s own), or doing work for another person which will receive academic credit are all impermissible. This includes the use of unauthorized books, notebooks, or other sources in order to secure or give help during an examination, the unauthorized copying of examinations, assignments, reports, term papers, or the presentation on unacknowledged material as if it were the student’s own work. Disciplinary action may be taken beyond the academic discipline administered by the faculty member who teaches the course in which the cheating took place.

NOTE: The School of Agriculture Faculty have adopted and implemented an Academic Honesty Policy in addition to the University Honesty Policy, which can be found in the current Undergraduate Bulletin and Graduate Bulletin. The policy sets guidelines regarding acts of dishonesty and the procedure to follow should an event occur. It is each Agriculture student’s responsibility to obtain and read a copy of this document. The School’s Academic Honesty Policy can be obtained by asking for a copy from any Agriculture Faculty member or the Secretary.

XII. **TEXT AND REFERENCES:**

*Applied Pharmacology for the Veterinary Technician* by Boyce Wanamaker and Christy Pettes

XIII. **PREREQUISITES:**

CHE 105 & CHE 106 OR CHE 201 & CHE 202

XIV. **STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:**

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with
disabilities equal access to participate in all programs and activities. For more information, contact Sabrina Y. Dial, Director of Equal Opportunity, Murray State University, 103 Wells Hall, Murray, KY 42071-3318. Telephone: 270-809-3155 (voice), 270-809-3361 (TDD).

XV. **MSU SCHOOL OF AGRICULTURE CELL PHONE POLICY**

The School of Agriculture recognizes that in today’s world cell phones are a familiar and often necessary form of communication for students.

It shall be the policy of the School that no cell phone usage shall be allowed in class and/or labs without the prior consent of the course instructor. This shall include verbal calling, incoming calls, email, text messaging, and use of cell phone calculators on tests and quizzes.

Cell phones must be kept off and out of sight (i.e. secured to a person’s belt or kept in a bag or purse away from desks and lab counters).

Should a student’s cell phone be visible, ring, or other form of unauthorized usage that is interruptive to the class or lab, the student may be asked to leave class and not return for that class/lab period.

Upon prior consent of the instructor, a student may obtain permission to have their phone on in case of an emergency or in critical family situations.

This policy also includes pagers and other electronic equipment such as blackberries and/or computers/laptops.