MURRAY STATE UNIVERSITY
COURSE SYLLABUS OUTLINE

SCHOOL OF AGRICULTURE

COURSE NUMBER: AGR 340  CREDIT HOURS: 3

I. **TITLE:**
Veterinary Laboratory Sciences

II. **CATALOG DESCRIPTION:**
This course is divided into 4 sections: veterinary science, toxicology, necropsy, and laboratory animal science. The course is designed to acquaint the student with basic pharmacology and toxicology, submission of the tissue samples to diagnostic laboratories, necropsy techniques, and common practices associated with laboratory animals.
Prerequisites: AGR 332, BIO 300, and 5 hours of chemistry courses.

III. **PURPOSE:**
To prepare students to perform tasks in a veterinary diagnostic laboratory.

IV. **COURSE OBJECTIVES:**
A. Laboratory Animal Science Lecture (Veterinary Science)
   1. To develop an understanding and working foundation of animals used in laboratory settings.
B. Laboratory Animal Science Lab
   1. To handle, restrain, medicate and collect blood from rabbits, rats, and mice
   2. To understand and evaluate husbandry and environmental conditions of laboratory animal housing
   3. To research and instruct fellow classmates on the care and husbandry of an assigned species through an oral presentation
   4. To read and comprehend a research study conducted on laboratory animals
C. Necropsy
   1. To learn how to examine carcasses using routine, thorough, and consistent methods
   2. To become familiar with the proper submission of tissue samples
D. Toxicology
   1. To learn general principles of toxicology which include diagnostic toxicology
   2. To learn management and treatment of toxicoses

V. **CONTENT OUTLINE:**
A. Laboratory Animal Science Lecture – 45%
B. Laboratory Animal Science – 20%
C. Necropsy – 10%
D. Toxicology – 25%

VI. **INSTRUCTIONAL ACTIVITIES:**
A. Laboratory Animal Science Lecture
B. Laboratory Animal Science Lab
C. Necropsy Lab
D. Toxicology Lecture

VII. **FIELD AND CLINICAL EXPERIENCES:**
A. Lab animal laboratories utilizing rodents and rabbits
B. Necropsy labs will be held at Breathitt Veterinary Center (BVC)

VIII. **RESOURCES:**
A. Handouts may be found on Blackboard
B. Essential skills booklet: Students will turn in $5 for the printing and binding of the booklet (one booklet will be used for all BVC courses). The essential skills must be successfully completed for the student to receive credit for the course. Otherwise the student will receive an “I” for the semester.
C. Lab Animals from Carman Pavilion
D. Alternative animal models
E. BVC Necropsy Room
F. Materials students should purchase and bring to class in addition to textbooks and laboratory material
   i. Simple nonprogrammable calculator
   ii. White laboratory coat
   iii. Scrubs or professional attire (can be any color as long as it matches)

*Students not dressed appropriately for laboratory will be asked to leave and change and will be docked professional points*

*Laboratory Animal Science lab notes and exercises will be found on Blackboard under Labs. Students will be responsible for printing the correct laboratory sections online before class starts. Students will also be responsible for driving themselves to 3 necropsy labs held at BVC.*

IX. **GRADING PROCEDURES:**
90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
Below 60 = E

Examinations:
A. Laboratory Animal Science Lecture-1 Exam
B. Laboratory Animal Science Lab - Oral reports, laboratory assignments, pop quizzes, professionalism and a final comprehensive lab exam
C. Necropsy-3 Laboratory Reports
D. Toxicology-1 Exam

*Professional attitudes are expected when working in the laboratory. Laboratory grades will reflect your professionalism in class.*

X. ATTENDANCE POLICY:
Please refer to Murray State University’s Undergraduate Bulletin and Graduate Bulletin.

NOTE: Attendance is mandatory. Students who leave class early or arrive late without making prior arrangements with the instructor will be docked points for professionalism. There will be absolutely no make-ups for pop quizzes, assignments or reports missed during the absences. If an absence is excused, the student will not be penalized for work they miss, but will be responsible for obtaining any material covered for exam purposes. Exams must be taken within the week of absence or the student will receive a zero. Written proof of excuse is required; otherwise, professional points will be docked for an absence and all assignments given a zero. It is the student's sole responsibility to obtain any information they missed during an absence and submit written proof of an excused absence to the instructor. Necropsy attendance is required as grades will reflect on attendance. Toxicology attendance is also required. There will be no make-ups for necropsy laboratory or toxicology lectures or exams.

XI. ACADEMIC HONESTY POLICY:
Any act of academic dishonesty will not be tolerated in this course and will result in a zero for the assignment or test in question. A letter regarding the incident will also be sent to the head of the department and the dean to be included in the student’s permanent record.

(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 (that can be found on-line at [http://www.murraystate.edu/agr/](http://www.murraystate.edu/agr/)) in addition to the University Honesty Policy, which can be found in the 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:**
- Gupta, *Veterinary Toxicology: Basic & Clinical Principles*, 0-12-370467-7, Elsevier Science

XIII. **PREREQUISITES:**
AGR 332, BIO 300, and 5 hours of chemistry

XVI. **STATEMENT OF AFFIRMATIVE ACTION AND EQUAL OPPORTUNITY:**
Murray State University does not discriminate on grounds of race, color, gender, sexual orientation, religion, national origin, age, disability, or veteran's status in providing any educational or other benefits services of Murray State University to students or those applying for admission at Murray State University. Murray State University attempts to provide equal opportunity in all areas of student admissions, financial aid, employment, and placement and provides upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities an equal opportunity to participate in all programs and activities. For information regarding nondiscrimination policies contact the Office of Equal Opportunity, 270-809-3155.

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.
Instructor’s Note: Only simple, non-graphing calculators will be allowed for exam purposes. No cell phones, laptops, or graphing calculators will be allowed during an exam.