SCHOOL OF AGRICULTURE

COURSE NUMBER:  AGR 611  
CREDIT HOURS:  2

I. TITLE:

Animal Anatomy and Physiology Laboratory

II. CATALOG DESCRIPTION:

Deals with the anatomy of body systems, how these systems interrelate, and the physiology of body organs. Species covered include porcine, bovine, equine, canine, and feline. (There will be two 2-hour labs per week.)

Prerequisite: AGR 310

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

III. PURPOSE:

To teach a basic understanding of the anatomy and physiology of animals.

IV. COURSE OBJECTIVES:

To discuss and cover the following species:

A. Equine
B. Bovine
C. Porcine
D. Canine
E. Feline

To familiarize students with the organs involved in the circulatory, respiratory, digestive, urinary, nervous, and musculoskeletal systems of livestock.

To teach students how these body parts work independently of one another, as well as, how they work together to sustain life.

To help students develop a better overall knowledge of how the animal body works and how such things as nutrition, environment, and management affect the general function of these body systems.
To provide knowledge on how one can maximize the functional capacity of the animal body in regard to increasing the production of the animal.

V. **CONTENT OUTLINE:**

A. Skeletal system  
B. Nervous system  
C. Muscular system  
D. Circulatory system (comparison of fetal blood flow vs. adult blood flow)  
E. Digestive system (comparison of ruminant vs. monogastric)  
F. Urinary system  
G. Respiratory system  
H. Mammary gland

VI. **INSTRUCTIONAL ACTIVITIES:**

A. Dissections  
B. Identify body tissues and learn form and functions

VII. **FIELD AND CLINICAL EXPERIENCES:**

Identify and label structural tissues in bovine, porcine, canine, and feline species.

VIII. **RESOURCES:**

Animal Health Technology Anatomy and Physiology Lab

IX. **GRADING PROCEDURES:**

Grades will be based on the students’ attendance, participation, knowledge, examinations, and quizzes. The final grade will be determined by dividing the total number of points possible by the number of points earned.

Grading scale:

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
</tr>
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<tbody>
<tr>
<td>90 – 100</td>
<td>A</td>
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<tr>
<td>80 – 89</td>
<td>B</td>
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<tr>
<td>70 – 79</td>
<td>C</td>
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<tr>
<td>60 – 69</td>
<td>D</td>
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<tr>
<td>Below 60</td>
<td>E</td>
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</tbody>
</table>

Grades will be earned by students rather than assigned by the instructor. Learning is not limited to the content outline of the course. This is the students’ class – please ask the instructor to help you achieve whatever your goals are in the course.
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:

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

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:

A. Anatomy and Physiology of Farm Animals, 4th edition, Frandson (reference)
B. Anatomy of Domestic Animals, Pasquini and Spurgeon 8th ed, (text)
C. Spurgeon’s Color Atlas of Large Animal Anatomy, McCracken, Krainer, and Spurgeon (lab manual)

XIII. PREREQUISITES:

AGR 310

Additional requirements:

A. Dissection kit
B. Latex gloves
C. Goggles
D. Lab coat

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.