I. **TITLE:**

Selected Studies in Agriculture: Applications in Animal Science

II. **CATALOG DESCRIPTION:**

A tour of leading beef cattle operations from genetic design companies through commercial application, product enhancement, and value added applications to final harvest of the commercial product and its distribution to the consumer.

Prerequisites: Instructor’s approval. Student must have completed 60 hours of course work.

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

III. **PURPOSE:**

To introduce students to the latest techniques in beef cattle production from genetic design of the seedstock industry and the subsequent testing of those genetics and then adoption as viable inputs for the commercial beef industry. Additionally, students will receive information to how these inputs have altered and are altering product enhancement during backgrounding, feeding, and packing sections of the beef industry.

IV. **COURSE OBJECTIVES:**

A. To complete a first hand study of the beef industry by touring leading operations to observe their applications of technology to the industry.
B. To expose students to the challenges that each segment of beef industry faces as they try to adapt to a cooperative system that will capitalize on genetic inputs and product enhancement rather than taking advantage of the mistakes of the others.
C. To introduce students to the “lessons learned” approach that leading beef operations are using as they selectively apply new technology to the beef production chain.
D. To introduce students to employment opportunities and potential employers to quality employees.
V. **CONTENT OUTLINE:**

A. Mating systems  
B. Genetic selection  
C. Performance evaluation  
D. Artificial insemination  
E. Expected Progeny Differences  
F. Embryo transfer  
G. Cloning  
H. Estrus synchronization protocols  
I. Early weaning  
J. Protocols for health systems  
K. Compensatory gain  
L. Targeting the market  
M. Marketing systems  
N. Hitting the target  
O. Product enhancement  
P. Pedigree stacking  
Q. Cooperative production  
R. Producing for niche markets  
S. Producing “branded” outputs  
T. Production efficiencies  
U. Input selection for optimum return  
V. Tangential inputs  
W. Product harvest and distribution  
X. Acclimating the consumer  
Y. Integrating the production chain while maintaining individuality  

VI. **INSTRUCTIONAL ACTIVITIES:**

A. Demonstrations  
B. Audio-visual presentations  
C. Discussions  
D. Lecture  
E. Tour  

VII. **FIELD AND CLINICAL EXPERIENCES:**

A. Students will tour leading purebred beef operations  
B. Commercial beef cow-calf operations  
C. Backgrounding  
D. Feedlot and packer operations in the Midwestern United States  
E. Ancillary input supply operations
VIII. **RESOURCES:**

A. Unit managers  
B. Researchers  
C. Extension personnel  
D. Brochures and handouts  
E. Systems design specialists  
F. Prototypes

IX. **GRADING PROCEDURES:**

<table>
<thead>
<tr>
<th>Score Range</th>
<th>Grade</th>
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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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A. Each student will be required to attend all tours at the scheduled time. Failure to do so will be reflected in the grading process.  
B. Each student will be required to keep a journal of daily tours and events to be turned in and evaluated. A handout with the format will be provided.  
C. A final collaborative paper will be assigned on one tour application.

*Graduate students will be expected to complete additional work.*

X. **ATTENDANCE POLICY:**

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

This educational experience will be of high intensity and short duration. Students will be expected to be at designated locations at designated times.

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:**

Materials and references provided at tour stops.

XIII. **PREREQUISITES:**

Instructor’s approval. Student must have completed 60 hours of course work.

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.