I. **TITLE:**

Artificial Insemination Technique

II. **CATALOG DESCRIPTION:**

Designed for students to become competent A.I. technicians. Topics discussed will include: reproductive processes, health, nutrition, facilities, and management of breeding herd. Techniques concerning semen handling, heat synchronization, and heat detection will be taught. Laboratories will be designed to give students actual experience in inseminating cattle.

Prerequisites: AGR 100

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

III. **PURPOSE:**

To provide students with the training necessary to become A.I. technicians in cattle.

IV. **COURSE OBJECTIVES:**

A. A.I. breeding techniques in cattle.
B. A.I. in horses and swine.
C. Heat synchronization.
D. Breeding system and recordkeeping.
E. Semen handling techniques.

V. **CONTENT OUTLINE:**

A. Class discussion
   1. Female reproductive tract: anatomy and physiology.
   2. Estrus cycle.
   3. Heat detection.
   4. Controlling reproductive diseases.
7. Managing cows during breeding.
8. Breeding records.
9. Controlled breeding session.
11. Semen handling.
12. A.I. technique.

B. Laboratory experience
   1. Practice A.I. technique in cattle (minimum 15 hours).
   2. Demonstrate A.I. in swine.
   3. Demonstrate A.I. in horses.
   4. Practice handling semen and actual insemination of cattle.

VI. INSTRUCTIONAL ACTIVITIES:

   A. Lectures
   B. Audio-visuals
   C. Laboratory demonstrations
   D. Hands-on practice

VII. FIELD AND CLINICAL EXPERIENCES:

   A. Each student will receive a total of 15 hours practice in artificial insemination techniques using leased cows at area livestock auction barns.
   B. Demonstration of artificial insemination techniques in horses and sows at the MSU farm laboratories.

VIII. RESOURCES:

   A. Textbooks
   B. University animal units
   C. Resource personnel
   D. Resource journals
   E. Extension publication
   F. Leased cows for student practice (local livestock auction barns)

IX. GRADING PROCEDURES:

   Lecture exam 100 points
   Laboratory participation 100 points
   Practical laboratory final 200 points
   Total 400 points
Grading scale:
90 – 100 = A
80 – 89 = B
70 – 79 = C
60 – 69 = D
Below 60 = E

Graduate students taking this course for credit are required to submit a research paper on the night of the final exam. The topic for the paper will be approved by the professor during the second class meeting.

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:**

All reference materials will be provided by the instructor. The text will be *American Breeders Service A.I. Management Manual.*

XIII. **PREREQUISITES:**

AGR 100

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 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.