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| For Academic Affairs and Research Use Only | |
| Proposal Number | AGRI01 |
| CIP Code: |  |
| Degree Code: |  |

**New or Modified Course Proposal Form**

**[x] Undergraduate Curriculum Council**

**[ ] Graduate Council**

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| **[x]New Course, [ ]Experimental Course (1-time offering), or [ ]Modified Course (Check one box)** |

Signed paper copies of proposals submitted for consideration are no longer required. Please type approver name and enter date of approval.

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| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date… **Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **COPE Chair (if applicable)** |
| Donald KennedyF 1/28/2022 **Department Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Head of Unit (if applicable)** |
| J Kim Pittcock 1/28/2022  **College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Undergraduate Curriculum Council Chair** |
| Mary Elizabeth Spence 10/19/2021 **Office of Assessment (new courses only)** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Graduate Curriculum Committee Chair** |
| Mickey Latour 1/28/2022 **College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **Vice Chancellor for Academic Affairs** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…  **General Education Committee Chair (if applicable)** |  |

1. **Contact Person (Name, Email Address, Phone Number)**

Jerica Rich

[jerich@astate.edu](mailto:jerich@astate.edu)

870-972-3392

1. **Proposed starting term and Bulletin year for new course or modification to take effect**

Enter text...

**Summer 2022**

**Instructions:**

*Please complete all sections unless otherwise noted. For course modifications, sections with a “Modification requested?” prompt need not be completed if the answer is “No.”*

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|  | **Current (Course Modifications Only)** | **Proposed (New or Modified)**  *(Indicate “N/A” if no modification)* |
| **Prefix** |  | **ANSC** |
| **Number\*** |  | **4073** |
| **Title** |  | **Cattle Reproduction & Artificial Insemination Management**  **(short title: Cattle Reproduction)** |
| **Description\*\*** |  | Field-based course to understand the reproductive physiology and endocrinological processes governing estrous cyclicity. Understanding of management decisions regarding reproduction of the cow-calf herd and inclusion of reproductive technologies like estrous synchronization and artificial insemination and their application. Summer. |

***\**** (Confirm with the Registrar’s Office that number chosen has not been used before and is available for use. For variable credit courses, indicate variable range. *Proposed number for experimental course is 9*. )

\*\*Forty words or fewer as it should appear in the Bulletin.

1. **Proposed prerequisites and major restrictions** **[Modification requested? Yes/No]**

(Indicate all prerequisites. If this course is restricted to a specific major, which major. If a student does not have the prerequisites or does not have the appropriate major, the student will not be allowed to register).

1. **NO** Are there any prerequisites?
   1. If yes, which ones?

No.

* 1. Why or why not?

This is a very specialized topic, students will learn all of the advanced techniques needed during the duration of the course. While previous livestock experience is preferable, it is not necessary.

1. **NO** Is this course restricted to a specific major?
   1. If yes, which major? Enter text...
2. **Proposed course frequency [Modification requested? Yes/No]**

(e.g. Fall, Spring, Summer; if irregularly offered, please indicate, “irregular.”) *Not applicable to Graduate courses.*

Summer

1. **Proposed course type [Modification requested? Yes/No]**

Will this course be lecture only, lab only, lecture and lab, activity (e.g., physical education), dissertation/thesis, capstone, independent study, internship/practicum, seminar, special topics, or studio? Please choose one.

Other: Experiential Learning

1. **Proposed grade type [Modification requested? Yes/No]**

What is the grade type (i.e. standard letter, credit/no credit, pass/fail, no grade, developmental, or other [please elaborate])

Standard letter

1. **No** Is this course dual-listed (undergraduate/graduate)?
2. **NO** Is this course cross-listed?

*(If it is, all course entries must be identical including course descriptions. Submit appropriate documentation for requested changes. It is important to check the course description of an existing course when adding a new cross-listed course.)*

**a.** – If yes, please list the prefix and course number of the cross-listed course.

Enter text...

**b.** – **Yes / No** Can the cross-listed course be used to satisfy the prerequisite or degree requirements this course satisfies?

Enter text...

1. **NO** Is this course in support of a new program?

a. If yes, what program?

Enter text...

1. **NO** Will this course be a one-to-one equivalent to a deleted course or previous version of this course (please check with the Registrar if unsure)?

a. If yes, which course?

Enter text...

**Course Details**

1. **Proposed outline** **[Modification requested? Yes/No]**

(The course outline should be topical by weeks and should be sufficient in detail to allow for judgment of the content of the course.)

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| **Cattle Reproduction & AI Management Schedule** | | | |
| **Week** | **Materials** | **Assignments Open** | **Assignments Due** |
| **1**  May 10th – 15th | 1. Anatomy & Estrous Cycle (pre-rec lecture) 2. Estrus Synchronization (pre-rec lecture) 3. Insemination technique (session 1/in person) 4. Insemination technique (session 2/in person) 5. Semen handling (videos/in person) | Quiz 1 | **Quiz 1**  **Exam 1** |
| **2**  May 17th – 21st | 1. AI vs NS (pre-rec lecture) 2. Perform AI on the cow-calf herd (in-person) 3. Pregnancy Detection Methods (pre-rec lecture) 4. Expected Pregnancy Rates (video) | Quiz 2  Exam 2 | **Quiz 2** |
| **3**  May 24th – 28th | 1. Management Factors (video) 2. All Things Beef Reproduction Webinar (video) 3. Summary Class Discussion & Closing Survey & Open Question Forum for students | Quiz 3 | **Exam 2**  **Quiz 3** |
| **4**  May 31st | Final Exam |  | **Exam 3**  **Final Exam** |

1. **Proposed special features** **[Modification requested? Yes/No]**

(e.g. labs, exhibits, site visitations, etc.)

Field-based experiences will be provided at the A-State Agricultural Teaching and Research Center on campus.

1. **Department staffing and classroom/lab resources**
2. Will this require additional faculty, supplies, etc.?

Yes, some PPE materials for artificial insemination will be provided for student use.

* + - 1. O/B non-spermicidal lubricant
      2. O/B palpation sleeves
      3. Gloves

1. **NO** Does this course require course fees?

*If yes: please attach the New Program Tuition and Fees form, which is available from the UCC website.*

**Justification**

**Modification Justification (Course Modifications Only)**

1. Justification for Modification(s)

Enter text...

**New Course Justification (New Courses Only)**

1. Justification for course. Must include:

a. Academic rationale and goals for the course (skills or level of knowledge students can be expected to attain)

This course is intended to offer advanced technical training and application of topics pertaining to cattle reproductive management and inclusion of reproductive technologies proven to enhance profitability and efficiency of the cow-calf herd. The course will include essential traditional classroom learning and also provide a unique and structured opportunity for application of that information while providing hands-on and individual experience with a large livestock species. Courses such as this, with a focus on hands-on/experiential learning (high impact activities) are part of an area of emphasis in the College of Agriculture strategic plan.

b. How does the course fit with the mission of the department? If course is mandated by an accrediting or certifying agency, include the directive.

The mission of the College of Agriculture is to discover, develop, and disseminate knowledge in agricultural and environmental systems to serve and benefit our students, the agricultural community and society. This course serves our students by preparing them with the technical knowledge and skills needed to handle large livestock in a safe low-stress manner, understand principles of reproductive management, and tie them back to the intricate physiology of the animal. In this course students will be required to integrate and apply multiple facets of information to help breed the cow-calf herd.

c. Student population served.

This course serves students in the College of Agriculture, specifically students majoring in Animal Science with an emphasis in Production and Management, however, students with a Pre-Vet emphasis can earn invaluable hands-on cattle experience that will serve to set them apart from other applicants as thy apply to veterinary school.

d. Rationale for the level of the course (lower, upper, or graduate).

This is an upper level course (4000 level). This experiential learning course deals with advanced topics of reproductive management specific to beef cattle. Students will be taught the underlying physiology of reproduction, how to perform the technique of artificial insemination, and to understand the connection between the intricate science and physiology of cattle and why we manage reproduction the way we do.

**Assessment**

**Assessment Plan Modifications (Course Modifications Only)**

1. **Yes / No** Do the proposed modifications result in a change to the assessment plan?

*If yes, please complete the Assessment section of the proposal*

**Relationship with Current Program-Level Assessment Process (Course modifications skip this section unless the answer to #18 is “Yes”)**

1. What is/are the intended program-level learning outcome/s for students enrolled in this course? Where will this course fit into an already existing program assessment process?

PLO: Students will demonstrate mastery of fundamental concepts in animal science.

PLO: Students will demonstrate depth in an emphasis area to support their professional goals.

This course provides a hands-on technical learning experience in advanced topics of reproductive management and will serve students in the animal science program within the college of agriculture; it also expands upon the fundamental concepts learned in lower level courses.

1. Considering the indicated program-level learning outcome/s (from question #19), please fill out the following table to show how and where this course fits into the program’s continuous improvement assessment process.

*For further assistance, please see the ‘Expanded Instructions’ document available on the UCC - Forms website for guidance, or contact the Office of Assessment at 870-972-2989.*

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| **Program-Level Outcome 1 (from question #19)** | Students will demonstrate mastery of fundamental concepts in plant and soil sciences. |
| Assessment Measure | Rubric to assess content knowledge, student presentations, and student survey |
| Assessment  Timetable | ANSC 4003 – Current Issues in Animal Science, taught every semester for senior standing students |
| Who is responsible for assessing and reporting on the results? | Dr. David Newman (course instructor) along with the College of Agriculture Animal Science faculty. |

**Course-Level Outcomes**

1. What are the course-level outcomes for students enrolled in this course and the associated assessment measures?

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| **Outcome 1** | Students will understand fundamental anatomy and physiology of cattle reproductive physiology and endocrinology |
| **Outcome 2** | Students will gain experience in animal behavior and handling, specifically low-stress handling that is conducive to successful reproduction and they will learn how to identify reproductive behaviors (“estrus / standing heat”). |
| Which learning activities are responsible for this outcome? | Students will watch lectures, professional presentations, and informational webinars regarding animal handling, reproductive anatomy, endocrinology and detection of estrus. Specific lecture materials will include pictures and video clips of outward displays of “estrus”, visualization of abattoir sourced cattle reproductive tracts, pharmaceutical products that allow for natural manipulation of the estrous cycle, students will also learn about estrus detection aids. All of these topics will then be applied for use on the A-State spring cow-calf herd. |
| Assessment Measure | Grading rubric and assessment of content knowledge via class discussions, quizzes, and examinations. |

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| **Outcome 3** | Students will learn the technique of artificial insemination. This requires transrectal palpation and manipulation of the reproductive tract to pass the artificial insemination catheter through the cervix and into the body of the uterus of the reproductive tract, where semen is deposited. |
| Which learning activities are responsible for this outcome? | Visual and tactile learning with the abattoir sources cattle reproductive tracts. |
| Assessment Measure | Grading rubric and instructor verification of catheter placement in the body of the uterus, both with the abattoir sourced “practice” reproductive tracts and with the ASU spring cow-calf herd. |

*(Repeat if needed for additional outcomes)*

**Bulletin Changes**

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| **Instructions** |
| **Please visit** [**http://www.astate.edu/a/registrar/students/bulletins/index.dot**](http://www.astate.edu/a/registrar/students/bulletins/index.dot) **and select the most recent version of the bulletin. Copy and paste all bulletin pages this proposal affects below. Please include a before (with changed areas highlighted) and after of all affected sections.**  **\*Please note: Courses are often listed in multiple sections of the bulletin. To ensure that all affected sections have been located, please search the bulletin (ctrl+F) for the appropriate courses before submission of this form.** |

PAGE 461

**ANSC 4003. Current Issues in Animal Agriculture** Identify, research, and interpret major issues  
impacting animal agriculture using creative problem solving and critical thinking skills. Prerequi-  
sites, ANSC 1613 and Senior Standing. Fall, Spring.

**ANSC 4073. Cattle Reproduction & Artificial Insemination Management** Field-based course to understand the reproductive physiology and endocrinological processes governing estrous cyclicity. Understanding of management decisions regarding reproduction of the cow-calf herd and inclusion of reproductive technologies like estrous synchronization and artificial insemination and their application. Summer.

**ANSC 4613. Horse Production** Selection, breeding, feeding, management, marketing of  
horses, and equitation. Lecture two hours, laboratory two hours per week. Prerequisite, ANSC  
1613. Spring.

**ANSC 4623. Beef Cattle Production** Management practices of commercial and purebred  
herds. Lecture two hours, laboratory two hours per week. Spring, odd.