ANFS 417
Beef Cattle and Sheep Production

Lecture: Monday and Wednesday
8:40 – 9:55
Lab: Monday 1:25 – 4:25
Instructional Team: Dr. Lesa Griffiths
Larry Armstrong
(Webb Farm Manager)

Course Objectives:

1. Students will demonstrate, integrate and apply knowledge of the major core concepts of Animal and Food Sciences as they apply to beef cattle and sheep production.

2. Students will use critical thinking and reasoning, skeptical inquiry and scientific approach to solve real problems as they relate to cattle and sheep production.

3. Students will demonstrate effective writing skills and conventions appropriate for communicating laboratory results.

4. Students will demonstrate an understanding of different perspectives on ethics, values, and the roles and use of animals in society and be able to discuss contemporary ethical and moral issues associated with cattle and sheep production.

5. Students will be able to critically evaluate their contributions to their own learning and the learning of their peers.

6. Students will work collaboratively and independently, learning from diverse perspectives to assimilate knowledge and synthesize new solutions and ways of thinking.

Course Policy: This course should tie together all of the core courses in Animal Science and relate them to the production of beef cattle and sheep. The course has a considerable out-of-class time commitment, and many small assignments. Participation and cooperation are essential to the success and enjoyment of both lecture and laboratory. I hope that you will welcome the opportunity to learn a great deal outside of the classroom, both from the on-farm work and from your classmates.
Grading:

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<th>Item</th>
<th>Points</th>
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<td>Homework (3)</td>
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<td>B+</td>
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<td>Case Study (1)</td>
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<tr>
<td>Attendance</td>
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<td>B-</td>
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<td>Barn Notebook</td>
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<td>Culture break (9)</td>
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<td>410</td>
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Exams: There will be a midterm and a final. **Midterm March 21**

Homework:

1. CD&T Homework Sheet (25 points) **Due Feb 15**

2. Scientific Paper Review (25 points) **Due April 27**

   Select a research papers from the Journal of Animal Science (or other approved journal) and complete the Double Entry Journal Critique for the paper you select.

3. Reflective Paper (5 points) **Due May 11**

   Type a 750 word essay and reflect upon the following questions:
   - While taking this course, what did you learn from your peers?
   - What did you learn from the instructors and farm staff?
   - What were some of the things you found most intriguing about cattle and sheep?
   - What did you learn about yourself?

4. Senior Picnic (5 points)

   Students in the spring capstone courses are responsible for hosting the senior picnic – which means set-up and cleanup and other misc. tasks – so please reserve the tentative date – **Friday May 13**.

Case Study: (100 points) **Due April 13**

As a group, write up a case study related to the animals we are working with in lab. You can pick an interesting aspect of an animal’s life – or if the animal has had a fairly uneventful life – you can focus on life history or production history. Approach the case study as a veterinarian might approach diagnosis of a health problem. Include information from ALL relevant influences on the animal - which can range from nutrition, pasture growth, stage of life/production, and genetic information (EPDs), to weather, housing, management, breeding, and disease etc. Group members should clearly identify their individual contributions to the case. The case study should be a
minimum of 2000 words long (not counting tables and references) and should be presented in an attractive, professional manner. It should be emailed as a WORD attachment to Dr. Griffiths by 5 pm on the due date.

**Culture break:** During every lecture we will have a break to discuss cultural topics related to the course material. Students may volunteer to share an article related to the course material. The student must hand in a copy of the article at the end of lecture (with student's name and date). Each student will be allowed 3 culture breaks and will receive 3 extra credit points per topic.

**Group Work:** You will be assigned to a lab group for most of the course. Decisions on when to work on lab activities should include input from all group members and tasks should be shared among all group members. If at any time, you feel that your group is not working well together and members are not contributing equally, please see me immediately.

**Laboratory:** Please wear appropriate clothing. There is no heat in any of the University facilities, so dress warmly. Boots and gloves are recommended. Coveralls may keep your clothing cleaner.

**Barn Notebook/Participation:** There will be a notebook in the barn which is a record of daily barn happenings. Your entries in this notebook will be used to determine your grade for Barn Notebook and the number and quality of entries will be compared against the class average for entries – so make sure you make an entry each time you visit the barn and the entry should be yours individually – not a group entry. Entries which do not contain updates and relevant content will not be counted.

**Summary of Due Dates for ANSC 417:**

- February 15: CD&T Homework
- March 21: Midterm
- April 13: Case Study
- April 27: Scientific Paper Review
- May 11: Reflective Paper
- May 13: Senior Picnic
- Finals week: Final Exam
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Lecture Topics:  
Introduction  
Reproduction in Cattle  
Reproduction in Sheep  
Nutrition for Beef Cattle  
Sheep Nutrition  
Beef Cattle Health Management  
Sheep Health Management  
Calving Management  
Breeding Principles  
Herd/Flock Improvement  
Breeds and Breeding Systems  
Sire Selection  
Industry Structure  
Facilities  
Growth and Development of Meat Animals  
The Conversion of Muscle to Meat  
Beef and Lamb Grading  
Marketing Cattle and Sheep  
Wool Quality and Grading  
Topics in Production Management

Potential Lab Topics:  
Lamb-Watch Information  
Baby Lamb Care and Management  
Lambing Difficulty  
CD&T Vaccines (vaccine assignment)  
Pregnancy Toxemia  
Calf Processing and Management  
Cow Body Condition  
Forages, Pasture Management and Fencing  
Identification  
Parasite Control  
Shearing Sheep

Topics are added to the lab syllabus as they arise. For example, the last time we taught the course we saw a few cases of pregnancy toxemia. Even though it is a lab topic, we may not see it and we may add a new topic should a new "problem" arise.
Faculty Statement on Disclosures of Instances of Sexual Misconduct

If, at any time during this course, I happen to be made aware that a student may have been the victim of sexual misconduct (including sexual harassment, sexual violence, domestic/dating violence, or stalking), I am obligated by federal law to inform the university’s Title IX Coordinator.

The university needs to know information about such incidents to, not only offer resources, but to ensure a safe campus environment. The Title IX Coordinator will decide if the incident should be examined further. If such a situation is disclosed to me in class, in a paper assignment, or in office hours, I promise to protect your privacy.

I will not disclose the incident to anyone but the Title IX Coordinator. For more information on Sexual Misconduct policies, where to get help, and reporting information please refer to www.udel.edu/sexualmisconduct.

At UD, we provide 24 hour crisis assistance and victim advocacy and counseling. Contact 302-831-2226, Student Health Services, to get in touch with a sexual offense support advocate.