INTRODUCTORY ANIMAL SCIENCE
ANS 131

INSTRUCTOR: Dr. John Michael Mehaffey
Room 103
Agriculture Building

OFFICE HOURS: MW 10 – 12 am; TR 11 – 12 & 1 – 3 pm
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LECTURE: TR 8:00 – 9:15 am Agriculture Room 110

TEXT: Note packets will need to be printed from D2L.

COURSE DESCRIPTION:

This course will explore how the interactions of breed selection, environmental conditions, mating systems, comparative digestive systems, reproductive physiology, and nutrition all affect the final product in production agriculture. This knowledge will allow the student to have a better understanding how livestock systems function and the impact animal production has on world and human experience.

Program Learner Outcomes

1. The student will demonstrate competence of technical subject matter areas in agriculture including plant and animal sciences, agricultural economics, and mechanized agriculture.
2. The student will exhibit problem-solving skills based on quantitative and analytical reasoning.
3. The student will demonstrate effective communication skills
4. The student will exhibit leadership and other interpersonal skills needed for career placement and advancement.

Student Learning Outcomes

1. Student will demonstrate competence of technical subject matter in animal and poultry sciences (ANS 131)
2. The student will demonstrate effective oral and written communication skills
3. The student will exhibit leadership and other interpersonal skills needed for career placement and advancement
4. The student will exhibit problem-solving skills based on quantitative and analytical reasoning
5. The student will demonstrate knowledge of farm and ranch skills. (ANS 131)
Objectives

1. To become able to recognize and label the external and internal parts and structure of farm animals
2. To gain a general understanding of the beef, sheep, goat, swine, poultry, companion animal and equine industries
3. To become knowledgeable of terminology used in animal science
4. To gain a basic understanding of nutrition, physiology, genetics, animal health and welfare

Lecture Attendance

Lecture attendance is mandatory and will be taken daily; if you are late you will be counted absent. You will be required to sign-in with the seat number every class period. You will be given three absences, for each absence after three your grade will be reduced by 10%.

Cell Phones

NO CELL PHONES ALLOWED IN MY CLASS! Cell phones are to be placed either on silent or turned off. I do not want to hear them buzzing in class either. They are not a part of the subject material and should not interrupt the learning of your classmates or distract the instructor.

Academic Integrity (A-9.1)

Academic integrity is a responsibility of all university faculty and students. Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism.

Definition of Academic Dishonesty

Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.

Please read the complete policy at
Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average.

Students with Disabilities

To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/

ACCEPTABLE STUDENT BEHAVIOR: Classroom behavior should not interfere with the instructor’s ability to conduct the class or the ability of other students to learn from the instructional program (see the Student Conduct Code, policy D-34.1). Unacceptable or disruptive behavior will not be tolerated. Students who disrupt the learning environment may be asked to leave class and may be subject to judicial, academic or other penalties. This prohibition applies to all instructional forums, including electronic, classroom, labs, discussion groups, field trips, etc. The instructor shall have full discretion over what behavior is appropriate/inappropriate in the classroom. Students who do not attend class regularly or who perform poorly on class projects/exams may be referred to the Early Alert Program. This program provides students with recommendations for resources or other assistance that is available to help SFA students succeed.
## INTRODUCTORY ANIMAL SCIENCE

### TENTATIVE SCHEDULE

<table>
<thead>
<tr>
<th>Week</th>
<th>Tuesday</th>
<th>Thursday</th>
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<tbody>
<tr>
<td>1 – 1/16</td>
<td>Introduction, Pretest</td>
<td>Introduction to Animal Science</td>
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<tr>
<td>2 – 1/23</td>
<td>The Value of Animals to Humanity</td>
<td>Factors Affecting World Agriculture</td>
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<tr>
<td>3 – 1/30</td>
<td>Worldwide Systems of Agriculture Production</td>
<td>Exam I</td>
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<td>Critical Thinking</td>
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<tr>
<td>4 – 2/6</td>
<td>Introduction to Nutrition</td>
<td>The Gastrointestinal Tract and Nutrition</td>
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<tr>
<td>5 – 2/13</td>
<td>Feedstuffs Classifications</td>
<td>Genetics</td>
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<tr>
<td>6 – 2/20</td>
<td>Animal Breeding</td>
<td>Biotechnology and Genetic Engineering</td>
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<tr>
<td>7 – 2/27</td>
<td>Animal Reproduction</td>
<td>Exam II</td>
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<td></td>
<td></td>
<td>Critical Thinking</td>
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<tr>
<td>8 – 3/6</td>
<td>Animal Behavior</td>
<td>NO CLASS</td>
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<td>9 – 3/13</td>
<td>NO CLASS</td>
<td>NO CLASS</td>
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<tr>
<td>10 – 3/20</td>
<td>Animal Health</td>
<td>Market Coordination</td>
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<tr>
<td>11 – 3/27</td>
<td>Beef Cattle</td>
<td>NO CLASS</td>
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<td>12 – 4/3</td>
<td>Dairy Cattle</td>
<td>EASTER BREAK</td>
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<td>13 – 4/10</td>
<td>Sheep and Goats &amp; Horses</td>
<td>Aquaculture &amp; Pets and Companion Animals</td>
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<td>14 – 4/17</td>
<td>Exam III</td>
<td>Careers and Career Preparation</td>
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<tr>
<td>15 – 4/24</td>
<td>Food Safety and Consumer Concerns</td>
<td>Food Safety and Consumer Concerns</td>
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<td>16 – 5/1</td>
<td>Animal Rights and Animal Welfare</td>
<td>Animals in Sustainable Agriculture</td>
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<td>Critical Thinking</td>
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<tr>
<td>17 – 5/8</td>
<td>FINAL</td>
<td>FINAL EXAM TUESDAY, MAY 8TH @ 8 AM!</td>
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### GRADING SYSTEM:

- **A** = 90 %
- **B** = 80 - 89 %
- **C** = 70 - 79 %
- **D** = 60 - 69 %
- **F** = LESS THAN 60 %

### POINT SYSTEM:

- **4 LECTURE EXAMS** 400
- **DISCUSSION QUIZZES** 200
- **3 CRITICAL THINKING ASSIGNMENTS** 150
- **TOTAL** 750
Lecture Exams

Lecture exams will consist of material covered prior to each of the three exams in lecture. Material is open to class discussion, presented material and group presentations. Exams may consist of multiple choice, true/false, matching, and short answer questions.

Discussion Quizzes

Discussion quizzes will consist of material covered in lecture mainly used as an attendance check for lecture. The best 10 possible grades will be retained for the students’ 200 possible points. The quizzes will be given at the beginning of lecture will each question given for a total of 30 seconds with no repeating of the question.

Critical Thinking Assignments

Livestock Production Systems

It is important for individuals to have an understanding of livestock production systems discussed in class and different areas of agriculture production. Discuss a production system and explain why it was utilized and how it has been developed into what it is in today’s society.

Reproduction in Livestock

The second assignment will be over reproduction systems in the livestock industry. This can cover topics such as Artificial Insemination, Embryo Transfer, In vitro, Natural Selection, Crossbreeding, to rearing systems within different species. This will allow the student to further investigate reproduction systems in the livestock industry and have a better understanding for why animals are bred and raised in the current manners in the livestock industry. This will allow the student to evaluate the cost involved in the systems and put their quantitative skills to the test to better understand what systems are the most cost effective for animal production.

Animal Welfare vs. Animal Rights

The third assignment will allow the students to research animal welfare and animal rights. This is a constant hot topic in production agriculture and many students have preconceived notions on the topic. At the end of the semester, after gaining an understanding of the ins and outs of the livestock industry, the students should be able to differentiate between rights and welfare and have an educated discussion on the topic.
Lecture Topic Descriptions

**Introduction and Terminology**
Students will gain an understanding of the production animal agriculture industry from a historical standpoint. Students also gain an understanding of vocabulary for the animal industry.

**Group Exercise/ Leadership Styles**
Students will work on a group exercise to gain a better understanding of their leadership styles.

**Breeds of Livestock and Vocabulary**
Students will gain an understanding of the breeds we utilize for livestock production systems for cattle, dairy, sheep, goats, swine and poultry; as well as gaining vital vocabulary for use of livestock.

**Livestock Systems**
Students will gain an understanding of the management systems in place for our livestock industries whether it is for dairy, beef cattle, mohair, wool, or meat production systems.

**Growth & Development**
Students will gain an understanding of the growth process and the development of muscle and fat in livestock species.

**Hormonal Control of Growth**
Students will gain an understanding of the hormones in the body, where they originate, their actions, how they control growth and how we can utilize them to benefit our production systems.

**Reproduction**
Students will gain an understanding of the basic reproduction systems in livestock including anatomy of the male and female, mating, gestation, parturition, and alternative mating systems.

**Artificial Insemination & Embryo Transfer**
Students will gain an understanding of artificial insemination, estrus synchronization, heat detection, and embryo transfer.

**Mating Systems for Livestock Production**
Students will gain an understanding of mating systems, utilization of genetics and selection of animals for breeding purposes.
**Evaluation of Breeding Animals**
Students will gain an understanding of evaluating breeding animals based on performance data, phenotype and genotype.

**Comparative Digestive Systems**
Students will gain an understanding of the digestive systems of our livestock species and how they utilize feed.

**Nutrients & Feedstuff**
Students will gain an understanding of the nutrients and feedstuffs we utilize in production agriculture.

**Animal Health & Welfare**
Students will gain an understanding of managing the health and welfare of our livestock animals in all livestock systems to optimize production.

**Market Classes & Grading**
Students will gain an understanding of our market system through inspection, grading, purchasing, and processing.

**Companion Animals**
Students will gain an understanding of the companion animal industry including opportunities in veterinary medicine, associated industries, breeds of dogs and cats, and basic nutrition.