

INTRODUCTORY ANIMAL SCIENCE ANS 131

INSTRUCTOR: TBD
OFFICE HOURS: TBD
LECTURE: TBD
LAB: TBD

TEXT (Optional): Fundamentals of Animal Science, 1st Edition Colin Scanes - University of Wisconsin, Milwaukee, Wisconsin ISBN-10: 1428361278 ISBN-13: 9781428361270 448 Pages CB

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.

Core Objectives

1. Critical Thinking: to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
2. Communication Skills: to include effective development, interpretation and expression of ideas through written, oral and visual communication
3. Empirical and Quantitative Skills: to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
4. Teamwork: to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal

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 (PLO 1; CO 1)
2. The student will demonstrate effective oral and written communication skills (PLOs 2, 3; CO 2)
3. The student will exhibit leadership and other interpersonal skills needed for career placement and advancement (PLOs 2, 3, 4; COs 1, 2, 3, 4)
4. The student will exhibit problem-solving skills based on quantitative and analytical reasoning (PLOs 2, 4; COs 1, 3)
5. The student will demonstrate knowledge of farm and ranch skills. (PLOs 1, 4; COs 2, 3, 4)

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 given three absences, for each absence after three your grade will be reduced by 10%.

Cell Phones

Cell phones are to be placed either on silent or turned off. I do not want to hear them buzzing in class either. There may be times when I ask you to look up information on them, but otherwise they are not a part of the subject material and should not interrupt the learning of your classmates

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 http://www.sfasu.edu/policies/academic_integrity.asp
Withheld Grades Semester Grades Policy (A-54)

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

TENTATIVE SCHEDULE

Week	Lecture Topic	Lab Topic	CO	Activity
1	Introduction; Group Exercise/Leadership Styles <i>CO 4: Instruction on Roles and Responsibilities in Teamwork</i>	<i>CO 1: Instruction on Critical Thinking for group presentations</i> <i>CO 2: Instruction on Effective Presentations and Incorporating Data</i>	1, 2, 4	
2	Breeds of Livestock	Breeds of Livestock	1, 2, 4	In groups identify the breeds that are present on the SFA Farms
3	Livestock Systems	Critical Thinking Presentation 1	1, 2, 3, 4	Presentation over breeds and how they impact industry
4	Growth & Development	Poultry Production <i>CO 3: Instruction on how to calculate stocking density and medications</i>	2 & 3	Tour poultry houses and learn to calculate stocking density and house medications
5	Hormonal Control of Growth	Swine Production	1, 2, 4	Process a litter of pigs
6	Reproduction	Reproductive Physiology <i>CO 3: Instruction on proper microscope use</i>	1, 2, 3, 4	Palpation and manipulation of the male and female reproductive tracts; Semen count and evaluation
7	Artificial Insemination & Embryo Transfer	Beef Production <i>CO 3: Instruction on calculating EPD's</i>	2, 3, 4	Castrate, dehorn, and deworm weaned calves; Observe AI and ET work; calculate EPD's
8	Mating Systems for Livestock Production	Critical Thinking Presentation 2	1, 2, 3, 4	Presentation over reproductive techniques and how they impact the industry
9	Evaluation of Breeding Animals	Sheep & Goat Production	2 & 4	Weigh, deworm, trim hooves, and shearing of sheep and goats
10	Comparative Digestive Systems	Equine Production	2, 3, 4	Proper care and handling of horses, saddle care, and aging by teeth
11	Nutrients & Feedstuffs	Feed Mill Tour <i>CO 3: Instruction on formulating diets</i>	1, 2, 3, 4	Tour feed mill and calculate diets for livestock
12	Animal Health & Welfare	Dairy Production	2	Tour local dairy
13	Market Classes & Grading	Processing Demo & Products Tasting <i>CO 3: Instruction on Calculating Yield Grades</i>	1, 2, 3, 4	Grade determinations on beef, cooking methods, processing procedures
14	Companion Animals	Critical Thinking Presentation 3	1, 2, 3, 4	Presentation over the difference between health and welfare and the impact the two have on animal agriculture
15	Varies by instructor			

GRADING SYSTEM:

A = 90 %

B = 80 - 89 %

C = 70 - 79 %

D = 60 - 69 %

F = LESS THAN 60 %

POINT SYSTEM:

3 LECTURE EXAMS	300
DISCUSSION QUIZZES	200
CRITICAL THINKING ASSIGNMENTS	300
CRITICAL THINKING PRESENTATIONS	100
LAB PARTICIPATION	100
LAB QUIZZES	100
LAB FINAL	200
FINAL EXAM	200
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TOTAL	1500

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 will 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

The critical thinking assignments are developed to allow the students to participate in group projects and think about important issues in production agriculture. There will be a total of 3 group projects consisting of a 2-page written paper by each member and a 10 minute group presentation over each topic. The topics are as follows:

Breeds of Livestock

It is important for individuals to have an understanding of breeds of livestock that are utilized for production agriculture. There are many breeds of livestock within each species of animals used in the agriculture industry. For this assignment, the students will be broken into groups of 4-5 and choose a breed of livestock to elaborate on for their classmates. This will include giving country of origin, original purpose of the breed, current purpose of the breed, any popular crossbreeds produced using the breed, estimated numbers in the United States, and why the breed is utilized for its purpose. The papers will be turned in during the lab time when the presentations will be given.

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. They will have to utilize critical thinking and teamwork in order to take any emotion out of this topic and have an educated discussion.

Labs

The laboratory portion will consist of hands on understanding of each species of production agriculture. The goal is for each student to be able understand where there animal goods come from. There will be a participation grade for lab attendance and “not being afraid to get dirty”. There will also be a quiz given at the beginning of each lab exercise.

Dress Code

Labs will involve livestock and will be outside. Therefore, the following is a must:

CLOSED TOED SHOES

PANTS

SLEEVES TO THE ELBOW

Core Objective 1 - Critical Thinking:

- Students will be required to evaluate their current views on the animal industry and production agriculture in general. Through group projects there will be opportunity to evaluate the innovative methods in production agriculture that include dealing with animal husbandry, environmental issues, and animal welfare. Gaining this knowledge base will require the student to inquire about current technology, analyze the need for animal production, evaluate the current production schemes, and synthesize this information in order to make an informed decision about the current state of livestock production throughout the world.
- The students will be required to participate in 3 group critical thinking projects over topics in agriculture including, breeds of livestock, reproduction systems, and animal welfare vs. animal rights.
- Students will be given informational packets at the beginning of the semester on how to successfully utilize critical thinking and ample information on the topics. The students will have to research the topics and write a 2-page paper as well as present the information to their peers in the form of a 10 minute presentation.

Core Objective 2 - Communication Skills:

- Students will learn interpretation skills by writing essays on controversial topics in animal agriculture production. These reports will allow the students and instructor to open up lines of communication in the classroom about the topics, allowing for scientific support of arguments and better understanding of the course topics.
- Students will then orally present a topic assigned by the instructor that allows for appropriate visual aids and research to support the topic. The students will be required to participate in 3 group critical thinking projects over topics in agriculture including, breeds of livestock, reproduction systems, and animal welfare vs. animal rights.
- The students will be given informational packets at the beginning of the semester on how to successfully utilize communication skills during an oral presentation and ample information on the topics. The students will have to research the topics and write a 2-page paper as well as present the information to their peers in the form of a 10 minute presentation.

Core Objective 3 - Empirical and Quantitative Skills:

- In animal production, the student will learn how to record, analyze, and report data on progeny in our livestock systems. In order to improve livestock efficiency, it is important to keep good data on growth and performance of our livestock species. Keeping effective data is important to expanding the effectiveness of our livestock systems and production ability. By analyzing and understanding Expected Progeny Differences, students will be able to draw conclusions about the practicality of certain genetic lines within breeds and species of livestock. The students' second presentation over Reproductive Systems in the livestock industry will force the students to have an understanding of the above information in order to properly understand and present the correct information for their reproductive systems, including cost effective systems for animal production.

- Students will learn to count and analyze semen under a microscope and interpret their findings.
- Students will learn to age horses by investigating their teeth.
- Students will learn to calculate diets for livestock based on their production goals.
- Students will learn to calculate stocking density in a poultry house and how to calculate and administer medications through the watering system.

Core Objective 4 - Teamwork:

- Students from urban and rural communities tend to have differing opinions on animal agriculture in general.
- In most laboratory exercises students will work in small groups to complete the assigned task.
- Group presentations allow for students with different backgrounds and point of views to work together and find common ground for the betterment of production agriculture or the end goal of the consumer in this case. The students must be able to present information on the livestock industry that removes opinions and focuses on the science behind the production systems. In order to have successful group work and presentations, the students will have to be able to work effectively as a team.
- This will be presented to them in the form of an exercise at the beginning of the semester where they will practice taking different roles within a group.