COURSE ORGANIZATION:

Instructor:  Dr. Lyle G. McNeal  
Office:  AGSC 224  
Undergraduate Teaching Fellow:  Assigned by Dean’s Office  
For Appointments:  See Administrative Assistant/Adviser, Ms. Tami Spackman  
AGSC 242, or call:  
(435) 797-2150  


Course Manual, Syllabus, Anthology with Overhead Graphics:  Purchase at USU Book Store  

COURSE DESCRIPTION:  
The influence and contributions of animal production and its commodities to society.  
Introductory scientific principles of animal science, livestock production systems, and contemporary issues.  
(4 Credits, 4 Lectures, Fall & Spring)  

COURSE PHILOSOPHY:  
For the reason that the life science of animal agriculture affects everyone, everyday, the human consumer needs an educated awareness of:  
- its contributions to human welfare.  
- the system of production from conception to consumption.  
  -the nature of the basic sciences and how they relate to animal production.  
- the contemporary issues affecting the animal industry. 

A goal of the course is to help students make informed judgements about animal agriculture, to develop an attitude of appreciation and respect for the industry and its products of food, fiber, sport and companionship. In addition to the content areas presented here, this goal requires critical thinking skills; an assertive self-disciplined, self-starter that questions the powers to be; has a general overview knowledge of the science component of animal agriculture and has an appreciation of agriculture in general. 

The primary compensation for the student taking this course is that he or she will have an invaluable knowledge of the basics of the animal industry. The knowledge attained and retained will not only help the student become better prepared for their professions, but more importantly, they will become well-informed consumers for the remainder of their life.
COURSE INSIGHTS:
This is an entry level course for any student in any agricultural or non-agricultural area. The only prerequisite necessary by the students enrolled is for an open and teachable mind. It is the professor's opinion that for a proper learning environment, biases and negativism constrains the learning process, where scientific truth should be permitted to be expressed.

PHYSICAL IMPAIRMENTS:
If a student has any physical disabilities or other problems that will likely require some accommodation by the instructor, these must be made known to the instructor during the first week of the course. Any requests for special considerations relating to attendance, pedagogy, taking of examinations, etc. must be discussed with and approved by the instructor prior to completion of the fifth day of the course. In cooperation with the Disability Resource Center, the course material can be provided in alternative formats -- large print, audio, and braille.

LECTURES, DISCUSSIONS & COURSE CONCEPTS
ADVS 1110
INTRODUCTION TO ANIMAL SCIENCE
4 Semester Credits

ANIMAL CONTRIBUTIONS TO HUMANS
Weeks 1: Introduction & Orientation
  Chapter 1 - Animal Contributions to Human Needs
Weeks 2 & 3: Animal Contributions to Humans
  Chapter 1 - Animal Contributions to Human Needs
Weeks 4 & 5: Historical Perspective of Animal Agriculture
  Chapter 2 - An Overview of the Livestock and Poultry Industries

PRODUCTION SYSTEMS
Weeks 6: Production Systems
  Chapter 26 - Feeding and Managing Beef Cattle
  Chapter 28 - Feeding and Managing Dairy Cattle
  Chapter 30 - Feeding and Managing Swine
  Chapter 32 - Feeding and Managing Sheep
  Chapter 34 - Feeding and Managing Horses
  Chapter 35 - Poultry Breeding, Feeding and Management
  Chapter 36 - Goat Breeding, Feeding, and Management

  Extensive and Intensive:
  Extensive - Beef Cattle, Sheep and Goats
  Intensive - Dairy, Swine and Poultry
ANIMAL CONTRIBUTIONS TO HUMANS (continued)

Weeks 7 & 8: Food from Animal Sources
Chapter 3 - Red Meat Products
Chapter 19 - Lactation
Chapter 5 - Milk and Milk Products
Chapter 4 - Poultry and Egg Products

Weeks 9: By-Products, Quality Assurance and Non-Food Items
Chapter 7 - By-Products of Meat Animals
Chapter 8 - Market Classes and Grades of Livestock, Poultry and Eggs
Chapter 6 - Wool, Mohair and Other Fibers

MID-TERM EXAMINATION

APPLIED SCIENCES
Week 10: Animal Breeding
Chapter 12 - Genetics
Chapter 13 - Genetic Change Through Selection
Chapter 14 - Mating Systems

Weeks 11 & 12: Reproduction
Chapter 10 - Reproduction
Chapter 11 - Artificial Insemination, Estrous Synchronization and Embryo Transfer
Chapter 18 - Growth and Development

Week 13: Nutrition
Chapter 15 - Nutrients and Their Functions
Chapter 16 - Digestion and Absorption of Feed
Chapter 17 - Providing Nutrients for Body Functions

CONTEMPORARY ISSUES AFFECTING ANIMAL AGRICULTURE
Weeks 14 & 15: Issues Affecting Animal Agriculture
Chapter 23 - Issues in Agriculture
Reserve Reading Topics - Issues Affecting Animals Agriculture:
Environmental Concerns
Sustainable Agriculture
Genetic Conservation
Biotechnology in Animal Agriculture
Agricultural Ethics
Animal Welfare vs Animal Rights vs Factory Farming
The Family Farm; an endangered enterprise

Week 16: FINAL EXAMINATION

GRADING CRITERIA:

- Mid-Term Examination: 30% of Grade
- Final Examination (Comprehensive): 30% of Grade
- Quizzes (Every Thursday): 20% of Grade (readings, lectures & visual media.)
- Attendance: 10% of Grade
- Assigned Work: 10% of Grade

**Final grades** will be assigned on the following basis:

- **A** = 95% and above on all work
- **A-** = 90-94%
- **B+** = 87-89%
- **B** = 84-86%
- **B-** = 80-83%
- **C+** = 77-79%
- **C** = 74-76%
- **C-** = 70-73%
- **D+** = 67-69%
- **D** = 64-66%
- **D-** = 60-63%
- **F** = Below 60% on all work

HONOR CODE

The Utah State University Honor Code embodies a spirit of mutual trust and intellectual honesty that is central to the very nature of the university, and represents the highest possible expression of shared values among the members of the university community. The fundamental beliefs underlying and reflected in the Honor Code are:

1. that trust in a person is a positive force in making that person worthy of trust,
2. that every student has the right to live in an academic environment that is free from the injustices caused by any form of intellectual dishonesty, and
3. that the honesty and integrity of all members of the university community contribute to its quest for Truth.

The functions of the Honor System are to communicate the meaning and importance of intellectual honesty to all students of the University; to articulate and support the interest of the community in maintaining the highest standards of conduct in academic affairs; and to identify, sanction, and educate those who fail to live up to the stated expectations of the university community with regard to these standards. The Honor Code is the University policy, which defines the expected standards of conduct in academic affairs. The Honor System is the University body charged with disseminating information about the Honor Code to the university community and with enforcement of the Honor Code.
The Honor Code is the University policy, which expressly forbids the following academic violations:

**Cheating** -- Cheating includes the actual giving or receiving of any unauthorized aid or assistance or the actual giving or receiving of any unfair advantage on any form of academic work, or attempts thereof.

**Plagiarism** -- Plagiarism includes the copying of the language, structure, ideas and/or thoughts of another and passing off same as one's own, original work, or attempts thereof.

**Falsification** -- Falsification includes the statement of any untruth, either verbally or in writing, with respect to any circumstances relevant to one's academic work, or attempts thereof. Such acts include, but are not limited to, the forgery of official signatures, tampering with official records, fraudulently adding or deleting information on academic documents such as add/drop requests, or fraudulently changing an examination or other academic work after the testing period or due date of the assignment.

Therefore, the student body at Utah State University will not tolerate any violation of the Honor Code. All students, upon admission to this University, have pledged to abide by the Honor Code. Any student found by the appropriate forum within the Honor System to have violated the Honor Code shall be deemed guilty as charged.

This means that ANYONE caught cheating or committing Plagiarism will be given an "F" for the semester and will be brought up to deal with the University Honor Code System.

**SUGGESTION FOR LEARNING:**

1. **Use of course anthology.** The course anthology syllabus has been thoughtfully developed to support the daily classroom lectures, visuals, as well as the out-of-class textbook reading assignments. It is suggested that the student read the anthology sections appropriate for each Chapter assignment, then read the textbook reading correlated with the anthology section, followed by a re-reading of those pertinent sections of the course anthology.

2. **Use of textbook.** It is highly encouraged that the weekly reading assignments in the class textbook be completed before those topics are discussed in the class. Besides reading those appropriate Chapters, it is suggested all "boldfaced" words in each Chapter should be fully understood by the student.

3. **Weekly studies.** It is suggested that each student identify another student to serve as a "study buddy", with which to study and cross-examine each other, at least on a weekly basis.

4. **Classroom Dialogue.** The professor feels it paramount that any unanswered question(s) or subject that needs further clarification be brought up in class additional understanding. There is no such thing as a "foolish question"!

**COURSE INSIGHTS:**

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**CONTENT OUTLINE**

1. **Introduction:**
II. Animal Contributions to Humans:
   A. Historical
      1. B.C.
   B. Modern Day - 1950-2003 AD
      1. Animal Industry
      2. Food
      3. By-Products
      4. Non-Food

III. Livestock and Poultry Production Systems:
   A. Extensive:
      1. Beef
      2. Sheep
      3. Goats
   B. Intensive:
      1. Swine
      2. Poultry
      3. Dairy
   C. Horses:

IV. Applied Sciences:
   A. Fundamental of Animal Genetics
      1. Terminology
      2. Avian vs Quadruped
      3. Applied
   B. Fundamentals of Animal Reproduction
      1. Terminology
      2. Anatomy
      3. Applied
   C. Animal Growth and Development
      1. Growth
      2. Development
   D. Elements of Animal Behavior:
      1. Terminology
   E. Fundamentals of Animal Nutrition:
      1. Terminology
      2. Anatomy
      3. Digestion
      4. Absorption
      5. Applied

V. Contemporary Issues Affecting Animal Agriculture
   A. Minimizing Impact:
      1. Environmental Issues
      2. Sustainable Agriculture
   B. Animal Welfare vs Animal Rights
   C. Genetic Conservation
   D. Biotechnology in Animal Agriculture
   E. Agricultural Ethics
   F. The Family Farm: an endangered enterprise
   G. The Ag Research Agenda, etc.

ADDITIONAL NOTES: