

## Live Animal and Carcass Evaluation

ANEQ 250 Fall 2017

(Prerequisite: ANEQ 101)

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### Course Teaching Assistants:

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### Course Purpose

In the U.S. livestock and meat industries, daily transactions are conducted which involve evaluation of live animals and the carcasses they produce. Primary value-determining characteristics of market animals and carcasses are assessed and translated into standardized descriptions that are used to establish and report prices. Correspondingly, evaluation facilitates trade of livestock and meat by providing uniform descriptions of value. This course provides students studying Animal Sciences with an understanding of evaluation principles and their application in livestock and meat marketing.

### Course Structure

3 Credits

Lecture: Meets Monday 8:30 - 9:20 a.m. (ARDEC Taylor Center Auditorium)

Live Animal Laboratory: Meets Monday 9:30 -11:00 a.m. (ARDEC Taylor Center Auditorium)

Carcass Laboratory: Meets Wednesday 8 – 9:40 a.m. or 10-11:40 a.m. (Clark and Meat Laboratory)

### Course Synopsis

**Laboratory** – In ANEQ 250 labs, students gain practical, “hands-on” experience in live animal and carcass evaluation and develop a working knowledge of U.S. livestock and meat marketing systems. The laboratories are grouped and sequenced according to species (sheep, swine, and cattle). The following topics are discussed:

- ***Market Animal Evaluation.*** Within each species, students evaluate groups of market animals. Following a discussion of the principles and techniques used for livestock evaluation and marketing, the students make independent estimates of value-determining traits for small groups of animals (2 to 4 animals per lab). These animals are viewed alive in Monday labs, processed during the week, and viewed as carcasses on Friday.
- ***Carcass Evaluation.*** Carcass evaluation principles and techniques are discussed and the students provide estimates or measurements for carcass traits of economic importance. Principles of livestock and meat pricing also are covered.

**Lecture** – Weekly, lectures provide foundational information associated with the use live animal and carcass evaluation in U.S. livestock and meat marketing systems to supplement the practical experience students gain in lab. Lecture topics include:

- **Understanding the Role of Anatomy in Livestock Evaluation.** This lecture examines the various anatomical structures (bones, muscles, fat depots, and connective tissues) that are used in livestock and carcass evaluation. The relationships of various structural components to differences in live animal appearance and carcass merit are discussed.
- **Basic Concepts of Livestock/Carcass Evaluation.** Two lectures outline the general concepts of meat animal evaluation. These lectures discuss the logic used to determine value of market livestock and develop a basic understanding of the role of evaluation in livestock and meat marketing.
- **Value Determining Characteristics of Meat Animals and Their Carcasses.** This lecture series discusses the factors that determine market animal and carcass value. These lectures focus on market terminology used in industry transactions and discuss major factors (age/sex classification, weight, dressing %, finish, muscling, and quality) that contribute to value differences. The lectures examine economic discrimination based on these factors and discuss how and to what extent each factor influences market animal value.
- **Growth and Development of Meat Animals.** Lectures in this section of the course are designed to highlight differences in growth and development that underlie variation in visual appearance and body composition in meat animals. The first lecture outlines fundamental patterns of growth and development in livestock species. Additional lectures examine factors (e.g., genetic, nutritional, hormonal) that influence growth and developmental patterns.
- **Beef Marketing Programs.** This lecture complements information presented in the market cattle and beef carcass evaluation laboratories by examining the ongoing structural transformation of traditional commodity based beef marketing systems to consumer-oriented beef marketing approaches and vertically aligned beef supply chains. Examples of various types of branded-beef programs are compared and discussed.

### Course Grade

The course grade is based on:

• Three 100-point laboratory exams (written exam)	300
• Two 100-point lecture exams (written exam)	200
• Three 100-point scored live animal evaluations (practical exam)	300
• Homework exercises/quizzes	<u>200</u>
Course total	1000

Course grades will be calculated as a percentage of the course total and distributed as follows:

A – 89.5% and greater

B – 79.5 to 89.4%

C – 69.5 to 79.4%

D – 59.5 to 69.4%

F – Less than 59.5%

### Make-Up Exams and Optional Final Exam

- The final exam is optional if no exams are missed.
- Students will be allowed to make up one missed exam (regardless of excuse for missing) and the final exam will serve as the make-up exam.
- A grade of zero will be recorded for additional missed exams.
- Students who have taken all five written exams may replace their lowest exam score with the final exam score.

- Scored evaluations cannot be made up, so you must be present to receive credit. Check the schedule and make arrangements now to be in class on those days.

### **Optional Textbook**

A textbook is not required for this course. The following optional textbook has been identified for your use if you wish to have additional reference material:

- *Livestock & Carcasses: An Integrated Approach to Evaluation, Grading and Selection* (Boggs, Merkel, Doumit, & Bruns, 6<sup>th</sup> Ed. – Kendall-Hunt)

### **Expectations**

- Regular attendance – required to receive course credit.
- Do your own work. This course adheres to the Academic Integrity Policy of the Colorado State University General Catalog and the Student Conduct Code. Violations of these university policies are not tolerated.
- Complete assignments on time – Late assignments may be accepted at the discretion of the instructor, but will not receive full credit if accepted.
- Be respectful of the classroom environment and conduct yourselves as professionals.

### **Student Success in ANEQ 250**

- Attend class regularly (single most important thing you can do – each week builds on previous week's experience).
- Engage in active learning.
  - Take notes (during class and as you review lectures, handouts, etc.).
  - Spend a few hours each week reading & reviewing materials provided and develop a “working knowledge” of the concepts you are learning (you are developing a new set of practical skills, so learn to apply the material).
  - Come to class prepared to use the information you learned in previous class meetings.
  - Ask questions and seek help if you don't understand something presented in class or in the written materials.
  - Write your own study guides to prepare for exams.
- Get to know fellow students and develop partnerships.
  - Work together and learn from one another in lab.
  - Form study groups to compare notes and prepare for exams

