COURSE INFORMATION FORM

COLLEGE of AGRICULTURE, KANSAS STATE UNIVERSITY

ASI 340

Dept. abbreviation and course number

Course Title: Principles of Meat Science. (2) I, II, S.

Course Description:
An overview of the Meat Industry for off-campus students using a videotaped format. Food Science and Animal Science majors cannot substitute this course for ASI 350. Pr.: A course in biology is recommended. ASI-340-0-0104.

Student Performance Objectives:

1. List and discuss the historical and economic impact of the meat industry.
2. List and discuss the requirements and procedures of state and federal inspection.
3. Differentiate factors involved in quality and yield grading of beef, lamb and pork carcasses.
4. Describe meat animal growth and development and contrast muscle, fat and bone in the way they develop and affect meat composition.
5. Compare and contrast muscle and adipose tissue in terms of structure, biochemistry, physiology and the influence of each on meat quality and composition.
6. List, compare and contrast the functions and characteristics of meat and nonmeat ingredients and the methods of manufacturing, restructuring, mechanical separation, and thermal processing.
7. List, compare and contrast different kinds of microorganisms involved in meat spoilage and food illness.
8. List meat packing plant by-products and discuss uses of these by-products.
9. Recognize and explain the nutritional contributions of meat and meat products in the diet.
10. Identify changes and trends in the meat industry in terms of processing, preservation, and distribution.

Instructor: Melvin C. Hunt
Course Outline:

I. Overview of the meat industry
II. Skeletal muscle structure
III. Muscle metabolism and contraction
IV. Conversion of muscle to meat
V. Postmortem changes in meat
VI. Muscle and carcass composition
VII. Physical properties of meat
VIII. Meat palatability and cookery
IX. Nutritive value of muscle foods
X. Meat inspection programs
XI. USDA meat grading systems
XII. Meat preservation and microbiology
XIII. Curing and sausage principles
XIV. Meat industry by-products

Evaluation Procedures:

Grade is based on exams.

Text and Reference Material:


Sequencing:

Supplemental Information: