

Discipline: Agriculture	Sub-discipline: Animal Science
General Course Title: Introduction to Meat Science	Min. Units: 3 Semester
Proposed Suffix: L	
<p>Course Description: An introduction to the meat industry with a special emphasis on meat products and value added meat processing techniques. Includes concepts on food safety and sanitation, grading and inspection, as well as, preservation and marketing strategies to meet current consumer demands. Laboratory required.</p>	
Required Prerequisites or Co-Requisites ¹	
Advisories/Recommended Preparation ²	
<p>Course Objectives: <i>At the conclusion of this course, the student should be able to:</i></p> <ul style="list-style-type: none"> • Identify economic trends, career opportunities and requirements for successful employment in the food processing industry. • Discuss the importance and uses of edible and inedible animal products. • Identify retail and wholesale meat cuts of all species and how this knowledge relates to meat preparation and consumption. • Demonstrate meat handling, processing, packaging and storage techniques. • Understand USDA meat grading and inspection standards. • Interpret and apply food and personnel safety and sanitation practices (HACCP). • Collectively discuss marketing strategies and product technology. • Collect and calculate data to ensure scientifically-based management decisions. • Identify cultural contributions and ethnic influences on the food processing industry. 	
<p>Course Content:</p> <ol style="list-style-type: none"> 1. The Meat Processing Industry <ol style="list-style-type: none"> a. Historical perspective b. Purpose and economic importance c. Future trends and technologies 2. Regulation and Compliance <ol style="list-style-type: none"> a. Food safety and inspection b. State and Federal laws c. Policies and trade unions 3. Equipment and Facilities <ol style="list-style-type: none"> a. Safety procedures and conditions b. Maintenance and operation of food processing equipment c. Sanitation 4. Meat and Edible By-Products <ol style="list-style-type: none"> a. Composition and nutrition value b. Health and consumer awareness c. Toxic compounds 5. Meat Processing <ol style="list-style-type: none"> a. Handling and cutting techniques b. Fabrication and specification c. Packaging and preservation <p>Introduction to Meat Science (Content Continued)</p>	

¹ Prerequisite or co-requisite course need to be validated at the CCC level in accordance with Title 5 regulations; co-requisites for CCCs are the linked courses that must be taken at the same time as the primary or target course.

² Advisories or recommended preparation will not require validation but are recommendations to be considered by the student prior to enrolling.

- 6. Processed Meat Products
 - a. Curing and smoking
 - b. Meat cookery, canning and drying
 - c. Sausage and seasonings
 - d. Additives and preservatives
- 7. Storage and Distribution
 - a. Shelf life and deterioration
 - b. Freezing and refrigeration
 - c. Handling and transportation
- 8. Management
 - a. Quality control
 - b. Employee skills and responsibilities
 - c. Production and efficiency
- 9. Marketing Research
 - a. Consumer acceptance
 - b. New and artificial meat products
 - c. Product development
 - d. Ethnic and specialty markets

Laboratory Activities: Individual Laboratory Activities are designed to support course objectives.

Methods of Evaluation: Lecture Comprehensive Quizzes and Exams Written Critical Thinking Scenarios Problem Analysis and Solution Research and Term Papers	Methods of Evaluation: Laboratory Laboratory Skill Validation by Observation Laboratory Reports Laboratory Research Projects and Reports Laboratory Skill Practicum Exams
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Typical Textbooks, Manuals, or Other Support Materials
Meat Buyers Guide by the National Association of Meat Purveyors, Library of Congress Catalog, Card No. 90-0062710
The Meat We Eat, Zieglar, P. Thomas, et al. ISBN 0-8134-24445
 Refer to "Meat and Poultry" magazine for supplemental texts (free)

Statewide Articulation: CPSLO-ASCI 211, CPP-AVS 327/L*, CSUF-A SCI 71, UCD-ANS 120, other universities as lower division elective (*upper division elective – subject matter competency determined by university advisor)

FDRG Lead Signature: _____ Date: _____
 Mark E. Bender, PhD CSU Stanislaus

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