I. Catalog Description (3 Hours):
This course will study meat as a food source with emphases in conversion of muscle to meat, storage, processing, palatability, safety and nutrition of meat. Three 1-hour Lectures (3)

II. Co- or Prerequisite(s):
AY 105 (Animal Science Experiences)

III. Purposes or Objectives of the Course (optional):
1) Explain growth and development of carcass tissues.
2) Describe physiologic conversion from muscle structure to meat structure.
3) Explain factors related to storage, safety and nutrition of meat products.

IV. Student Learning Outcomes (Minimum of 3):
1) Students will be able to depict a contracted sarcomere and a relaxed sarcomere.
2) Students will be able to describe basic processing procedures.
3) Students will be able to expand on the nutritive value of meat.

V. Optional departmental/college requirements:
A. Faculty must have experience in meat science

VI. Course Content or Outline (Indicate number of class hours per unit or section):

A. Topic

Unit One: Muscle and Associated Tissues
Structure of animal tissue 3 hours
Growth and development of tissue 2 hours
Mechanism of muscle contraction 4 hours
Exam 1

Unit Two: Muscle to Meat Conversion
Chemical and physical changes 2 hours
Postmortem Meat Changes 2 hours
Water holding capacity 3 hours
Exam 2
Unit Three: Meat Processing
Basic processing procedures 3 hours
Microbial contamination 2 hours
Deterioration 2 hours
Storage and preservation 3 hours
Distribution processes 2 hours
Exam 3

Unit Four: Retail Meat
Displays 2 hours
Types of food service 2 hours
Palatability 2 hours
Exam 4

Unit Five: Nutrition and Inspection
Nutritive value of meat 4 hours
Inspection (including religious exemption) 4 hours
Meat grading 4 hours
Exam 5

Final Exam

Signature: ___________________________  Date: _____________________

Chair

Signature: ___________________________  Date: _____________________

Dean