ANSCI 27 Course Outline as of Fall 2015

CATALOG INFORMATION

Dept and Nbr: ANSCI 27 Title: BEEF CATTLE SCIENCE
Full Title: Beef Cattle Science
Last Reviewed: 1/25/2021

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	3.00	Lecture Scheduled	2.00	17.5	Lecture Scheduled	35.00
Minimum	3.00	Lab Scheduled	3.00	17.5	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	5.00		Contact Total	87.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 70.00 Total Student Learning Hours: 157.50

Title 5 Category:	AA Degree Applicable
Grading:	Grade Only
Repeatability:	00 - Two Repeats if Grade was D, F, NC, or NP
Also Listed As:	
Formerly:	AG 62

Catalog Description:
A study of the principles of purebred and commercial beef cattle production throughout the World, United States ,and California. Emphasis to be placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing, and recordkeeping to ensure scientifically based management decisions and consumer product acceptance as applied to beef cattle.

Prerequisites/Corequisites:

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100

Limits on Enrollment:

Schedule of Classes Information:
Description: A study of the principles of purebred and commercial beef cattle production throughout the World, United States, and California. Emphasis to be placed on the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing, and recordkeeping to ensure scientifically based management decisions and consumer product

acceptance as applied to beef cattle. (Grade Only)
Prerequisites/Corequisites:
Recommended: Eligibility for ENGL 100 or ESL 100
Limits on Enrollment:
Transfer Credit: CSU;UC.
Repeatability: Two Repeats if Grade was D, F, NC, or NP

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	**Area**	Effective:	Inactive:
CSU GE:	**Transfer Area**	Effective:	Inactive:
IGETC:	**Transfer Area**	Effective:	Inactive:

CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:
UC Transfer:	Transferable	Effective:	Fall 2001	Inactive:

CID:
CID Descriptor: AG - AS 108L Beef Cattle Science
SRJC Equivalent Course(s): ANSCI27

Certificate/Major Applicable:
Both Certificate and Major Applicable

COURSE CONTENT

Student Learning Outcomes:
At the conclusion of this course, the student should be able to:
1. Demonstrate knowledge of the principles of purebred and commercial beef cattle production throughout the World, United States and California.
2. Describe the importance of breeds, breeding principles, selection, nutrition, environmental management, health, marketing and recordkeeping to ensure scientifically based management decisions and consumer product acceptance as applied to beef cattle.
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Objectives:
Upon completion of the course, students will be able to:
A. Discuss the history and development of the beef industry.
B. Identify beef breeds and their adaptability to climatic conditions and types of operations.
C. Describe the common systems of beef production.
D. Explain the principles of genetics in terms of form and function in the beef industry.
E. Define the relationship between the consumer, packer, and retailer in the commercial beef industry.
F. Identify common diseases and parasites and the current methods of prevention and treatment.
G. Explain the principles involved with ruminant nutrition in beef production.
H. Demonstrate the use of computer management systems to efficiently manage beef cattle operations.

I. Discuss animal welfare issues, environmental concerns and the beef cattle quality assurance program.
J. Discuss career opportunities and requirements for successful employment.
K. Identify cultural influences on the beef industry.

Topics and Scope:

1. The Beef Cattle Industry
    a. Origin and importance of beef cattle
    b. Breeds of cattle
    c. Ethnic contributions
2. Systems of Production
    a. Purebred enterprise
    b. Cow/calf operations
    c. Stocker operations
    d. Feedlot operations
3. Establishing the Beef Herd
    a. Selecting the breed and breeding system
    b. Selecting and foundation stock
        1. Type and conformation
        2. Pedigrees
        3. Performance
4. Beef Cattle Management Practices
    a. Care and management of the breeding herd
    b. Beef animal preparation for seed stock sales
    c. Buildings and equipment
5. Beef Cattle Genetics
    a. Principles of beef cattle genetics
    b. Percentage of heritability of beef traits
    c. Economically important beef traits
6. Beef Cattle Nutrition
    a. Digestion and utilization of feed
    b. Nutrient requirements for beef cattle
    c. Rations for beef cattle
    d. Range management
7. Herd Health
    a. Common diseases of cattle
    b. Control of parasites
    c. Poisonous plants that affect cattle
8. Marketing Beef Cattle
    a. Marketing purebred and commercial cattle
    b. USDA yield and quality grades
    c. Beef cattle production cycles
9. Issues and Regulations in the Beef Cattle Industry
    a. Animal/welfare issues
    b. Quality assurance program
    c. Environmental issues
    d. Cultural influences on the industry

Assignment:

Lab Assignments:
Showing livestock
Making up rations

Lecture Assignments:
Read periodicals, handouts, and textbooks (20 pages per week).
Lab reports (16--one per week).
Term paper (6 to 8 pages).
2 midterms
Final Exam

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Lab reports, term paper	Writing 10 - 30%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

None	Problem solving 0 - 0%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, performance exams	Skill Demonstrations 10 - 30%

Exams: All forms of formal testing, other than skill performance exams.

Tests, quizzes, exams	Exams 30 - 60%

Other: Includes any assessment tools that do not logically fit into the above categories.

Attendance and participation	Other Category 0 - 10%

Representative Textbooks and Materials:
Beef Production and Management Decisions,Taylor, Robert, 2nd edition, MacMillan Publishers, 2002.(Classic)
Beef Cattle Science, Ensminger, M.E., The Interstate Publishers, 1996. (Classic)
Cooperative Extension Cow-Calf Management (Magazine)
Drovers Journal