College of the Sequoias
COLLEGE ASSOCIATE DEGREE COURSE OUTLINE

SUBJECT AREA AND COURSE NUMBER: ASCI 001

COURSE TITLE: INTRO TO ANIMAL SCIENCE

Units: 3

TOP Code: 0102.00 - Animal Science

Cross-Listed Courses:

CATALOG COURSE DESCRIPTION:

The course surveys the livestock industry, supply of animal products and their uses and analyzes economic trends and career opportunities in animal agriculture. Special emphasis is on the origin, characteristics, adaptation and contributions of farm animals to the agriculture industry. This course is approved for distance education format.

REQUISITES:

NONE

FIELD TRIP REQUIREMENTS: Required

LECTURE HOURS PER WEEK: 2   TOTAL LECTURE HOURS PER SEMESTER: 35
LAB HOURS PER WEEK: 3   TOTAL LAB HOURS PER SEMESTER: 52.5

ACTIVITY HOURS PER WEEK:

TOTAL ACTIVITY HOURS PER SEMESTER:

TOTAL HOURS PER WEEK: 5   TOTAL CONTACT HOURS PER SEMESTER: 87.5

GRADING: S - Standard Grading A-F

REPEATABLE: A - Not designed as repeatable

TRANSFERABLE:

*Approved* CSU BA Transferable (1-199 level)

YES

METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to, the following:

* Laboratory
* Lecture and/or Discussion
* Other (Specify)
* Presentation and analysis

METHODS OF EVALUATION:
A student's grade will be based on multiple measures of performance unless the course requires no grade. Multiple measures may include, but are not limited to, the following:

- Skill demonstrations
- Problem solving assignments or activities
- Essay quizzes or exams
- Written essays or extended papers
- Multiple choice tests
- Short answer quizzes or exams
- Oral presentations

**COURSE TOPICS:**

**Outline Of Topics:**
The following topics are included in the framework of the course but are not intended as limits on content. The order of presentation and relative emphasis will vary with each instructor.

A. Introduction to Animal Agriculture
B. Careers and Career Preparation in the Animal Sciences
C. Overview of the Livestock Industry
D. Evaluation and Performance Livestock
E. The Animal Food Industry
F. Reproduction
G. Genetics
H. Nutrition
I. Animal Health
J. Issues Affecting the Animal Industry

**OUTCOMES:**

**Course Objectives**
The main concepts for this course will ask students to...

1. Discuss issues affecting consumer awareness, animal welfare, food safety and the environment.
2. Identify career opportunities and requirements for successful employment.
3. Identify animal contributions to human needs.
4. Understand basic nutritional needs and feeding practices of scientific livestock production.
5. Identify life cycles and biotechnological principles of animal production.
6. Demonstrate and understand animal behavior as it relates to health and performance.
7. Collect and calculate data to ensure scientifically-based management decisions.

**Student Learning Outcomes**
Given safe procedures for livestock handling is necessary for successful employment in the livestock industry, students will be able to restrain, move, and safely monitor movement of animals from pen to trailer. Students' ability to safely move livestock will be assessed by supervision and inspection of animal before and after trailering.

- Skill demonstrations
- Problem solving assignments or activities
- Essay quizzes or exams
- Written essays or extended papers
- Multiple choice tests
- Short answer quizzes or exams
- Oral presentations

Given the major concerns in American society stemming from food safety, students will be able to understand modes of pathogenic transmission in the food chain and measures taken to prevent and or minimalize incidents to levels established by industry standards of the major employers in the San Joaquin Valley.

- Skill demonstrations
- Problem solving assignments or activities
- Essay quizzes or exams
- Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given that animal science is a vocational area of study, students will be able to become familiarized with employment opportunities by lecture and field trips to industry standards for skills and educational level requirement. These will be presented by employers on tour and verified by 70% or above on written exam.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given alternate choices in human nutrition, students will be able to be presented to nutrient contribution of those animal products produced by animal husbandry by correctly performing in a written test to 70+% accuracy.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given the diversity of digestive types in farm animal production, students will be able to classify digestive system similarities and differences and monitor gain and cost of growth stages. Cost of production in the lab will be analyzed and compared to industry standards.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given the variation in life cycles of domestically produced food and or companion animals, students will be able to understand and explain in written form common and evolving practices utilized in production. Students will verify by testing to above 70%, explaining reasons for common husbandry practices.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given the need for safety and animal welfare, students will be able to comprehend the interaction between behavior, health and performance to approved industry standards.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Given the complexity and depth of verifiable data required in food animal production and exposure to information
systems and the agencies they represent, students will be able to transport papers vaccination and treatment records. Protocols will be collected to industry standards.

Skill demonstrations
Problem solving assignments or activities
Essay quizzes or exams
Written essays or extended papers
Multiple choice tests
Short answer quizzes or exams
Oral presentations

Institutional Outcomes
1. Communicate effectively for a given purpose within the specific context of a communication event.
2. Use appropriate creative and analytic methods to interpret ideas, solve problems, and present conclusions.
3. Write coherently and effectively, adjusting to a variety of audiences and purposes, while taking into account others' writings and ideas.

Assignments

Lab Content:
Lab Content

In this lab, all students will learn proper vaccination and/or treatment techniques including intramuscular, subcutaneous, intradermal, subconjunctival, intraperitoneal, and intravenous.

Lab 1: Evaluation and Performance Livestock
a. Identifying external anatomy
b. Evaluating type and conformation
c. Perspective of carcass composition to the live animal
d. Understanding carcass and performance data

Lab 2: The Animal Food Industry
a. Food products and processing
b. Consumption and marketing strategies
c. Trends and future outlook
d. Health and nutritional considerations
e. Global systems of animal production

Lab 3: Reproduction
a. Reproductive organs and their functions
b. Animal breeding
c. Mating systems
d. Fertility

Lab 4: Genetics
a. Fertilization
b. Gene modification and interactions
c. Genetic improvement and variation
d. DNA and RNA

Lab 5: Nutrition
a. Nutrients
b. Feeds and feed composition
c. Digestive systems
d. Growth and development

Lab 6: Animal Health
a. Prevention and the environment
b. Major diseases of farm animals
c. Detecting unhealthy animals
d. Treatment and care

Lab 7: Issues Affecting the Animal Industry – Part 1
a. Animal behavior
b. Animal welfare
c. Advances in biotechnology and genetic engineering

Lab 8: Issues Affecting the Animal Industry – Part 2
a. Government and environmental concerns
b. Food safety and consumer awareness
c. The role of animals in sustainable agriculture.

TEXTS AND SUPPLIES:
Textbooks may include, but are not limited to:

**TEXTBOOKS:**

**MANUALS:**

**PERIODICALS:**

**MATERIALS FEE:** $0

**OTHER:**

Honors Course Outline Addendum

**ORIGINATOR:** Bob Britton

**DATE:** 04/28/2009