

Lassen Community College Course Outline

AGR 12 Animal Health and Disease

3.0 Units

I. Catalog Description

Study of common livestock diseases and fundamentals of immunity; includes the livestock technician's role in promoting animal health and the foundation of disease control programs. This course has been approved for hybrid delivery.

Recommended Preparation: Successful completion of ENGL105 or equivalent multiple measures placement.

Transfer Status: CSU/UC

34 hours Lecture

51 hours Laboratory

Scheduled: Spring (even)

II. Coding Information

Repeatability: Not repeatable, take one time

Grading Option: Graded only

Credit Type: Credit - Degree Applicable/Credit

TOP Code: 010200

III. Course Objectives

A. Course Student Learning Outcomes

Upon completion of this course the student will be able to:

1. Identify common diseases, determine treatment, and evaluate environmental factors that contributed to the spread of disease

B. Course Objectives

Upon completion of this course the student will be able to:

1. Describe the importance of promoting livestock health
2. Identify career opportunities in the animal health industry
3. Demonstrate and understand the role animal behavior plays in individual and herd health.
4. Identify the cultural influences that have led to animal health advancements.
5. Identify common diseases and determine appropriate treatment regimen.
6. Differentiate between pathogenic and non-pathogenic disease.
7. Identify environmental factors contributing to disease.
8. Appraise and identify physiological changes which alter susceptibility to various health problems.
9. Name and demonstrate proper use of equipment that humanely confines, treats or protects livestock.
10. Explain basic principles of biosecurity, including disease prevention programs.
11. List regulations of transport for health.
12. Analyze an operational scenario and formulate a preventative program.
13. Have reasonable accommodations made to perform all learning objectives regardless of physical and/or learning disabilities.

14. List common diseases in U.S. livestock production and established control programs.

IV. Course Content

A. Introduction and overview

1. Historical concepts
2. Causative agents of disease
3. Methods of transmission
4. Principles of prevention of disease
 - a. Disinfection
 - b. Vaccinations
 - c. Sanitation
5. Body defense mechanisms
 - a. Primary Immune System
 - b. Secondary Immune System
6. Immunity – classified
7. Predisposing disease factors
8. Disease Treatment
 - a. Proper wound dressing
 - b. Antibiotics

B. Anatomy and Physiology

1. Body system and primary system disease
 - a. Endocrine
 - b. Reproductive
 - c. Digestive
 - d. Circulatory
 - e. Urinary
 - f. Respiratory

C. Parasites

1. Symptoms, lifecycles and controls
 - a. Enteroparasites
 - b. Ectoparasites

D. Restraint

1. Restraint types
 - a. Passive restraint
 - b. Active restraint

Laboratory Activities:

1. Students will visually inspect the equine, beef, sheep and swine barns for sanitation threats.
2. Documentation of all sanitation problems and corrective guidelines.
3. Disease diagnosis and prescribe treatment.
4. Clean and dress minor wounds
5. Bacteria culture and antibiotic plate testing.
6. Animal system anatomy and physiology.

V. Assignments

A. Appropriate Readings

Journal of Animal Science and the Merck manual

B. Writing Assignments

All students must write a final paper for the class on an animal health topic.

C. Expected Outside Assignments

Students must do two reports on current animal health concerns as it relates to zoonotic diseases. Students will be required to complete two hours of outside-of-class homework for each hour of lecture.

D. Specific Assignments that Demonstrate Critical Thinking

Students will demonstrate critical thinking by analyzing animal health situations and giving proper treatment.

VI. Methods of Evaluation

Traditional Classroom Evaluation

A. Students grades will be determined by test and quizzes

B. Students grades will be determined by practical diagnosis in lab.

Hybrid Evaluation

All quizzes and exams will be administered during the in-person class time. Students will be expected to complete online assignments and activities equivalent to in class assignments and activities for the online portion of the course. Electronic communication, both synchronous and asynchronous (chat/forum) will be evaluated for participation and to maintain effective communication between instructor and students.

VII. Methods of Delivery

Check those delivery methods for which, this course has been separately approved by the Curriculum/Academic Standards Committee.

Traditional Classroom Delivery Correspondence Delivery

Hybrid Delivery Online Delivery

Traditional Classroom Delivery

Lecture and Demonstrations

Hybrid Delivery

A combination of traditional classroom and online instruction will be utilized. Every semester, a minimum of 17 hours of class will be taught face-to-face by the instructor and the remaining hours will be instructed online through the technology platform adopted by the District. Traditional classroom instruction will consist of lectures, visual aids, discussions and group activities. Online delivery consists of instructor-generated information, readings, news communications, web links and activities as well as facilitation of forum based discussions and communications.

VIII. Representative Texts and Supplies

Constable, Peter; *Veterinary Medicine*, 11th edition, 2016, Elsevier, ISBN 9780702052460

IX. Discipline/s Assignment

Agriculture Production

X. Course Status

Current Status: Active

Original Approval Date: 12/02/2014

Board Approval Date: 01/13/2015

Chancellor's Office Approval Date: 03/26/2015

Revised By: Brian Wolf

Curriculum/Academic Standards Committee Revision Date: 11/03/2020

Revised for IPR, no change: 03/15/2022