

ASCI 113: FARM ANIMAL BIOLOGY

Proposer:**Name:**

Allison Vander Plaats

Email:

allisonv@cos.edu

Effective Term:

Fall 2021

Credit Status:

Credit - Degree Applicable

Subject:

ASCI - Animal Science

Course Number:

113

Catalog Title

Farm Animal Biology

Catalog Description

This course is an introduction to the scientific concepts of farm animal anatomy and physiology. The objective of the course is to familiarize students with major organ systems and species differences of farm animals. Laboratory exercise will include hands-on training of the anatomy and physiology of domesticated farm animals for those students seeking employment or advanced degrees in the animal sciences.

Advisory on Recommended Preparation:

ASCI 001 or equivalent college course with a minimum grade of C

Method of Instruction:Laboratory
Lecture and/or Discussion**Course Units/Hours:****Course Units Minimum:**

3

Lecture Hours Minimum (week)

3

Lab Hours Minimum (week)

1

Activity Hours Minimum (week)

0

Total Contact Hours Minimum (semester)

70

Total Outside Hours Minimum (semester)

105

Total Student Learning Minimum Hours (semester)

175

Repeatability:

No

Open Entry/Exit:

No

Field Trips:

Not Required

Grade Mode:

Standard Letter

TOP Code:

010200 - * Animal Science

SAM Code:

B - Advanced Occupational

Course Content

Methods of Assessment:

Essay quizzes or exams
Oral presentations
Problem solving quizzes or exams
Project
Short answer quizzes or exams
Skill demonstrations
Written essays or extended papers

Course Topics:

Course Topics	
1	Cell biology: parts of the cell, mitosis and meiosis
2	Microscopy
3	Integumentary system
4	Musculoskeletal system
5	Cardiovascular and circulatory systems
6	Respiratory System
7	Immunity
8	Nervous system and senses
9	Gastrointestinal system
10	Reproductive system

Course Objectives:

Course Objectives	
1	Utilize a microscope for the examination of blood cells, parasites, and other specimens.
2	Describe the function of the nervous system and its relationship to body dynamics.
3	Describe disease mechanisms and the importance of vectors in livestock.
4	Explain passive and acquired immunity as they relate to livestock.
5	Differentiate the ruminant and non-ruminant digestive systems as they apply to domestic farm animals.
6	Describe the function of the respiratory system and its relationship to body dynamics.
7	Describe the function of the circulatory system and its relationship to body dynamics.
8	Differentiate the different components of blood and their functions.

Course Outcomes:

Course Outcomes	
1	Students will be able to recognize and use correct anatomical terminology and label the parts of the skeleton. This will be tested through written examination.
2	Students will be able to differentiate and give advantages of both passive and acquired immunities as they relate to the production of livestock. This will be tested through written examination.

Assignments:

Assignment Type:	Details
Lab	Students will apply their knowledge of body systems and anatomy as they are guided through a necropsy of a farm animal (cow, sheep, or pig).
Lab	Students will label the parts of a microscope, focus a microscope, scan a slide, and sketch what they are seeing.
Homework	Students will trace the path of blood to and through the heart, and label each part of a heart diagram.
Reading	Read through this sample necropsy report of a BLM mustang mare. List the abnormal findings by body system and translate her cause of death into layman's terms. https://www.blm.gov/sites/blm.gov/files/uploads/Veterinary%20Report%201_Nevada_Owyhee_2016.pdf
Writing	After completing your necropsy, complete a necropsy report listing findings by body system. All body systems should be included, listing normals and abnormal findings. At the end of your report, list a probable cause of death of your necropsy subject.

Textbooks or other support materials

Resource Type:	Details
Books	Fails, Anna Dee, et al. Anatomy and Physiology of Farm Animals. 8th ed., John Wiley & Sons, Inc., 2018. ISBN 9781119239710.

Transferable to CSU

Yes - Proposed

Transferable to CSU Justification

Similar courses exist in domestic animal anatomy and physiology at Fresno State (ASCI 145), Chico State (ANSC 440), Cal Poly San Luis Obispo (ASCI 229), and UC Davis (ANS 100).

CSU General Education

CSU GE B2: Life Science
Transferable to CSU

This course will also be proposed for UC transfer.

Yes

Other Degree Attributes

Degree Applicable
Not a Basic Skills Course

Additional Attachment

ASCI113 DLA.pdf

Banner Title:

Farm Animal Biology

Curriculum Committee Approval Date:

02/25/2021

Academic Senate Approval Date:

03/10/2021



District Governing Board Approval Date:

04/12/2021

Course Control Number:

CCC000526170