



ASCI 112: SMALL RUMINANT SCIENCE

Proposer:**Name:**

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Effective Term:

Fall 2021

Credit Status:

Credit - Degree Applicable

Subject:

ASCI - Animal Science

Course Number:

112

Catalog Title

Small Ruminant Science

Catalog Description

Survey of sheep and goat industries, including management of commercial, purebred and small farm flocks. This course will cover selection, feeding, breeding, and basic care and husbandry of small ruminants plus marketing of sheep, goats and their products.

Method of Instruction:

Laboratory

Lecture and/or Discussion

Distance Education (Emergency Addendum)

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:

C - Clearly Occupational

Course Content

Methods of Assessment:

- Essay quizzes or exams
- Multiple choice tests
- Problem solving assignments or activities
- Project
- Short answer quizzes or exams
- Skill demonstrations

Course Topics:

Course Topics	
1	Development of sheep and goat industries and segments in the United States and global trends
2	Harvesting and marketing of products, including shearing and carcass quality, marketing channels, historical trends, and selection of animals for breeding and marketing
3	Reproduction, including basic reproductive physiology and anatomy, lambing and kidding processes, pregnancy diagnosis, breeding, and selection of breeding animals and genetic defects
4	Basic nutrition for small ruminants, including nutrient requirements and rations
5	Management of small ruminants, including operational basics, financial considerations, marketing products, animal identification and government regulation, selection and culling practices, and predator management
6	Health and disease of small ruminants, including common diseases, parasites, and their treatment and prevention
7	Low stress movement and restraint of small ruminants

Course Objectives:

Course Objectives	
1	Discuss animal welfare, environmental and food safety issues in the sheep and goat industries.
2	Utilize modern identification and data management systems.
3	Discuss nutrient requirements and feeding programs for various stages of sheep and goat production.
4	Administer pharmaceutical products (such as vaccines) to sheep and goats utilizing industry accepted methods that are in compliance with Quality Assurance programs.
5	Demonstrate ethical and safe methods for moving, handling and restraining sheep and goats.
6	Review the essential equipment and facilities needed to produce sheep and goats.
7	Explain the criteria utilized by the USDA for market classification and grading of live sheep and goats and their carcasses.
8	Analyze the most important sheep and goat diseases and parasites as well as the principles of their control including prevention and treatment.
9	Describe the major segments of the sheep and goat industries.
10	Perform basic veterinary procedures commonly utilized in sheep and goat operations.
11	Evaluate and rank classes of feeder, market and breeding sheep and goats based on visual conformation and performance data.
12	Identify anatomical features of sheep and goats.
13	Identify common breeds of sheep and goats and list their respective economically important strengths.

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| 14 | Describe the factors influencing the development of the sheep and goat industries. |
| 15 | Provide an overview of the sheep and goat industries, including historical and economic perspectives. |

Course Outcomes:

Course Outcomes	
1	Upon completion of this course students will be able to justify and perform basic management procedures for sheep production, including vaccination, tail docking, and monitoring ewes for signs of lambing.
2	Upon completion of this class students will be able to describe and implement a breeding program for the production of lambs.
3	Upon completion of this course students will be able to list common diseases and parasites and their symptoms and control.

Assignments:

Assignment Type:	Details
Reading	Read through the Handling section of the Sheep Care Guide to prepare for a discussion on proper low stress handling techniques in lambs
Writing	Management Project For the final project, each group will address the section topics below. For the Reproduction and Marketing section, each group will pretend as if they have their own flock of sheep or goats (choose species and breed), and will create a basic business plan, including when they will lamb/kid, what reproduction protocols they will use to achieve that (when to breed, how to breed, estrus synchronization protocol if necessary), what product they plan to market, and how to accomplish that (4H/FFA sales, farmer's market, online only, etc).
Homework	Homework: Introduction to Sheep and Goat Production 1) What are the basic terminologies for goats and sheep (male, female, castrated male)? 2) What are the differences between grazing and browsing? 3) What is the purpose of shearing sheep? 4) What types of internal and external parasites can goats and sheep get? What is used to help prevent/mitigate external and internal parasites? 5) Why is hoof care important for goats and sheep? 6) What types of predatory control can be used for goat and sheep?
Lab	For the health lab, we will collect fecal samples from lab animals and perform Fecal Egg Counts. Students will prepare a McMasters fecal float and count and categorize the numbers of internal parasite eggs. Sheep will be dewormed in a future lab based on these counts.

Textbooks or other support materials

Resource Type:	Details
Books	American Sheep Industry Association, Inc.. Sheep Production Handbook, 8th ed. American Sheep Industry Association, 2016, ISBN: 9780974285764
Web/Other	American Sheep Industry online publications, including the Sheep Care Guide and Sheep Quality Assurance manual

Transferable to CSU

Yes - Approved

CSU General Education

Transferable to CSU

This course will also be proposed for UC transfer.

No

Other Degree Attributes

Degree Applicable
Not a Basic Skills Course

Additional Attachment

ASCI112 DLA.pdf



Banner Title:

Small Ruminant Science

Curriculum Committee Approval Date:

10/22/2020

Academic Senate Approval Date:

10/28/2020

District Governing Board Approval Date:

11/09/2020

Course Control Number:

CCC000526211