



South Central College

ANSC 1205 Ruminant Animal Production

Course Outcome Summary

Course Information

Description	Students will critically evaluate genetic, reproductive, economic and management criteria that influence profitability and sustainability of ruminants as viable agricultural animal enterprises in Minnesota, the United States and the World. This course will specifically focus on ruminant animals such as dairy, beef cattle, sheep and goats, as productive enterprises, including milk production, dairy-beef feedlot, as well as other ruminant animal production enterprises. Course enrollees will concentrate on current resources available to the industry via the Internet, guest speakers, tours and industry publications. (Prerequisites: None)
Total Credits	3
Total Hours	48

Types of Instruction

Instruction Type	Credits/Hours
Lecture	3/48

Pre/Corequisites

None

Institutional Core Competencies

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

Course Competencies

1. Determine the economics of large and small ruminant industries in Minnesota, the U.S. and the World.

Learning Objectives

Quantify the economic impact of the US beef, dairy, sheep and goat industries.
Describe an overview of the domestic and international dairy, beef, sheep and goat industries.

2. Describe ruminant production systems.

Learning Objectives

Compare and contrast purebred versus commercial ruminant livestock segments.

List primary facilities and equipment required for ruminant livestock production.

3. Apply knowledge of ruminant disease prevention and management.

Learning Objectives

Discuss mastitis prevention.

Create an animal and herd health protocol and plan for a ruminant livestock enterprise.

Justify the role of prevention in animal health.

4. Investigate principles of growth and development in ruminant livestock species.

Learning Objectives

Explain the importance of hormones and the growth curve in ruminant animal management.

Describe the effects of frame size, gender, muscling and age on growth of ruminant animals.

5. Apply reproductive technology and management for ruminants.

Learning Objectives

Compare and contrast the management and breeding season of various ruminants with other livestock.

Identify the role and use of reproductive technology in ruminant livestock production.

6. Identify genetic improvement, selection and evaluation systems in ruminant livestock production.

Learning Objectives

Compare and contrast the performance and selection of ruminant breeds.

Compare and contrast the genetic ad selection tools available to breeders.

Discuss selection for improved productivity.

7. Acquire knowledge in product quality and marketing as it relates to ruminant livestock production.

Learning Objectives

Describe the milking process.

Describe the anatomy, development and function of the mammary gland.

Describe hormonal and non-hormonal influences on milk production.

8. Practice and integrate principles of nutrition as it relates to sustainable and efficient ruminant livestock production.

Learning Objectives

Explain the nutrient/milk yield return relationship during lactation and gestation.

List the elements of a successful ruminant program based on production stage.

Describe the nutritional management needed in small and large ruminant systems.

9. Analyze Ruminant Animal Production Systems.

Learning Objectives

Analyze the various types of ruminant livestock systems.

Compare and contrast profitable and unprofitable ruminant livestock systems.

SCC Accessibility Statement

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: www.southcentral.edu/disability

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