Minnesota State College Southeast

AGRI 1202: Animal Science

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: Goal 03 - Natural Science

This course offers basic knowledge in understanding the important role of domestic animals in agriculture. Reproduction, Nutrition, Growth/Development and Health will be the overarching modules of the course. These will apply to the study of selected animal species (Ruminant, monogastric, avian) that will be considered in the second half of the course. Class time will be spent in lecture, lab and field trips to farms and livestock operations in order to foster learning. Special consideration will be given to sustainable and regenerative practices integrating animals to a diversified farm. (Prerequisite: none) (3 Credits: 2 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 09/20/2018 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Role of animals in historic and modern farming practices
2. Risks associated with agricultural operations
3. Livestock species, breeds, and characteristics
4. Animal husbandry and disease control

D. LEARNING OUTCOMES (General)

1. Develop an appreciation for the important role played by domestic animals in agriculture
2. Identify a variety of livestock species and breeds
3. Describe the desirable traits within specific breeds of cattle, goats, sheep, pigs, horses, and other livestock
4. Demonstrate safe practices when working around livestock to include appropriate animal restraint and handling and mitigating for zoonotic concerns
5. Compare and contrast ruminants and monogastric animals
6. Explain the biological principles of livestock genetics, reproduction, and breeding.
7. Demonstrate an understanding of the principles of anatomy, physiology, and behavior of livestock to include cows, sheep, goats, horses, pigs, turkeys, chickens, ducks.
8. Describe the unique considerations for management of cows and goats in dairy operations.
9. Compare and contrast various methods of raising livestock in relation to the biological, ethical, and economic concerns
10. Explain the importance of biodiversity in the farm setting in regards to both livestock and wildlife to include the role of invertebrates, pollinators, birds, and predators

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

Goal 03 - Natural Science

1. Demonstrate understanding of scientific theories.
2. Formulate and test hypotheses by performing laboratory, simulation, or field experiments in at least two of the natural science disciplines. One of these experimental components should develop, in greater depth, students' laboratory experience in the collection of data, its statistical and graphical analysis, and an appreciation of its sources of error and uncertainty.
3. Communicate their experimental findings, analyses, and interpretations both orally and in writing.
4. Evaluate societal issues from a natural science perspective, ask questions about the evidence presented, and make informed judgments about science-related topics and policies.

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted