

MINNESOTA WEST COMMUNITY & TECHNICAL COLLEGE

COURSE OUTLINE

DEPT. AGRI

COURSE NUMBER: 2201

NUMBER OF CREDITS: 3

Lecture: 3 Lab: 0 OJT: 0

Course Title:
Principles of Animal Nutrition

Catalog Description:
Principles of Animal Nutrition covers the classification and function of nutrients, digestion, and utilization of feeds. This includes nutrient requirements for livestock and poultry, nutrient composition, and feeding standards.

Prerequisites or Necessary Entry Skills/Knowledge:
None

FULFILLS MN TRANSFER CURRICULUM AREA(S) (*Leave blank if not applicable*)

- Goal 1: Communication: By meeting the following competencies:
- Goal 2: Critical Thinking: By meeting the following competencies:
- Goal 3: Natural Sciences: By meeting the following competencies:
- Goal 4: Mathematics/Logical Reasoning: By meeting the following competencies:
- Goal 5: History and the Social and Behavioral Sciences: By meeting the following competencies:
- Goal 6: The Humanities and Fine Arts: By meeting the following competencies:
- Goal 7: Human Diversity: By meeting the following competencies:
- Goal 8: Global Perspective: By meeting the following competencies:
- Goal 9: Ethical and Civic Responsibility: By meeting the following competencies:
- Goal 10: People and the Environment: By meeting the following competencies:

Topics to be Covered
Feed Nutrients and Their Functions
Feed Analysis
Comparative Digestive Systems
Proteins
Carbohydrates
Fats
Water
Minerals & Vitamins
Develop Rations for Swine, Beef, Dairy, Poultry, Horses
Classification of Feed Stuffs - Roughages, Concentrates, Supplements

Student Learning Outcomes

Explain the nutrient requirements of livestock and six basic nutrients.

Compare differences and similarities of digestive systems

Explain feed stuff digestion and nutrient absorption.

Identify symptoms of nutrient deficiencies.

Explain the analytical methods used to determine nutrient composition of feed stuffs.

Describe how to determine digestibility of feed stuffs.

Classify feed into the various categories.
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Identify factors regulating feed intake by livestock.

Describe and apply mathematical solutions to animal diet formulations.
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Compare life-cycle feeding programs for beef, swine, dairy, poultry, and horses.
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Calculate rations for the various livestock species.
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Is this course part of a transfer pathway: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

Revised Date: 6/2021