

I. COURSE INFORMATION

- A. Agriculture 203 Fundamentals of Animal Nutrition
- B. 3 credit hours
- C. Kellems, Richard O. and David C. Church. *Livestock Feeds and Feeding*. 6th ed. New Jersey: Pearson, 2010
- D. Prerequisites: CHE 105 or CHE 125

II. COURSE DESCRIPTION

This course covers the study of animal digestive systems and metabolic processes; origin and composition values of common feeds; nutritional requirements for development, maintenance, and growth.

III. LEARNING OUTCOMES

- A. Discuss the importance of animal nutrition in modern agriculture
- B. Describe methods of nutrient and feedstuff analysis
- C. Identify the anatomy and function of the gastrointestinal tract from prehension, digestion, absorption and excretion
- D. Interpret energy utilization and requirements for different classes of animals
- E. Describe various supplemental protein sources and their functions
- F. Explain the function of vitamins and minerals and their deficiencies
- G. Recognize feed additives, growth simulators, medicated feeds and feed labeling laws
- H. Formulate rations for the different classes of livestock using various methods

IV. MAJOR CONTENT AREAS

- A. Introduction to nutrition and feedstuff analysis
- B. Digestive systems
- C. Energy needs
- D. Protein and water
- E. Vitamins, minerals, and feed additives

V. ASSIGNMENTS (may include but are not limited to)

- A. Quizzes
- B. Exams
- C. Writing assignments
- D. Comprehensive final exam

VI. EVALUATION METHODS (may include but are not limited to)

- A. Assignments and chapter quizzes
- B. Calculate livestock rations
- C. Exams and comprehensive final exam