Title: Animal Science
Abbreviation and Number: AGRI151   AB Paper No.: 14-80
School: Chemistry, Environmental and Life Sciences
Department: Biology
Credits: 2
Course Sequence: ( ) Fall ( ) Spring ( X ) Fall and Spring
Hours Per Week: ( 2 ) Lecture ( ) Seminar ( ) Laboratory ( ) Studio ( ) Kitchen
( ) Other (Specify)
Pre-requisite(s): First year standing
Co-requisite(s): None

**COURSE DESCRIPTION**
Students learn about the anatomy and physiology of various farm animals, their nutritional requirements and health maintenance. Students examine the role of genetics in animal husbandry.

**SPECIFIC OBJECTIVES**
Upon successful completion of this course, students will be able to
1. Compare the anatomy and physiology of different farm animals;
2. Describe best practices in farm animal care and nutrition;
3. Discuss the principles of genetics;
4. Examine the role of genetics animal husbandry; and
5. Determine the economic importance of various farm animals.

**COURSE CONTENT**
I. Role of nutrition in animal health
   A. Nutrients
      i. Major classes
      ii. Sources
      iii. Symptoms of deficiencies
   B. Feed
      i. Classification
      ii. Composition
      iii. Additives

II. Animal anatomy and physiology
   A. Skeletal system
   B. Muscular system
   C. Digestive system
   D. Circulatory system
   E. Respiratory system
   F. Nervous system
   G. Urinary system

III. Principles of genetics
   A. Mitosis
   B. Meiosis
   C. Genetics in the improvement of animals
IV. Reproductive system of animals
   A. Male
   B. Female
   C. Methods of breeding
   D. Role in animal improvement
   E. Reproductive problems

V. Systems breeding
   A. Pure breeding
   B. Cross breeding
   C. Grading up
   D. Inbreeding
   E. Outcrossing
   F. Artificial insemination

VII. Poultry
    A. Economic importance
    B. Feeding
    C. Management
    D. Egg production
    E. Diseases and parasites

VIII. Dairy cattle
     A. Economic importance
     B. Breeds
     C. Management
     D. Feeding
     E. Diseases and parasites

IX. Beef cattle
    A. Economic importance
    B. Breeds
    C. Management
    D. Feeding
    E. Diseases and parasites

X. Swine
   A. Economic importance
   B. Breeds
   C. Management
   D. Feeding
   E. Diseases and parasites
XI. Sheep
   A. Economic importance
   B. Breeds
   C. Management
   D. Feeding
   E. Diseases and parasites

XII. Goat
   A. Economic importance
   B. Breeds
   C. Management
   D. Feeding
   E. Diseases and parasites

ASSESSMENT
Assignments................................................... 20%
Tests............................................................ 20%
Project......................................................... 20%
Final Examination.......................................... 40%
Total......................................................... 100%

REQUIRED TEXT

SUPPLEMENTARY READING/MATERIAL

WEBSITES
www.csrees.usda.gov
www.fao.org/
usda.mannlib.cornell.edu