I. CATALOG DESCRIPTION

Prerequisites: VAT101, VAT106, VAT113, VAT114, VAT199, VAT250, VAT258, and VAT263 with a grade of "C" or better.

3 semester hours credit

Food Animal Technology is a lecture/laboratory course that familiarizes students with techniques employed in practices where domestic food animals are concerned. Topics include breed identification of various species, anatomy and physiology, nutrition, restraint, disease prevention, and medical and surgical nursing.

II. EXPECTED LEARNING OUTCOMES

By the end of this course the students will be exposed to all food animal clinical procedures listed in the AVMA's Veterinary Technology Essential and Recommended Skills List. Students will be provided with a basic sense of the functions of a technician in a domestic food animal veterinary practice, and will be able to safely handle and medicate animals.

III. COURSE OUTLINE

A. Beef Industry and Breeds
   1. External anatomy
   2. History of beef industry
   3. Beef breeds

B. Systems of Beef Production
   1. Various systems and areas of beef production
   2. Cattle restraint
   3. Common equipment

C. Nutrition and Parasites
   1. Rumen physiology
   2. Basic livestock nutrition
   3. Grasses and legumes

D. Diseases and Disorders of Cattle
   1. Common cattle diseases and disorders
   2. Vaccination programs
   3. Herd health practices

E. Cattle Reproduction
   1. Anatomy of male and female reproductive tracts
   2. Breeding systems
   3. Pregnancy diagnosis
   4. Parturition and dystocia
   5. Semen evaluation

F. Dairy Industry
1. Dairy breeds
2. Management of dairy cattle
3. Current dairy practices
4. Colostrum management
5. Raising bottle calves

G. Goat Management
1. History
2. Breeds
3. Reproduction
4. Diseases
5. Restraint

H. Sheep Industry
1. History
2. Breeds
3. Reproduction
4. Management
5. Restraint
6. Diseases

I. Ruminant Parasites
1. Internal parasites
2. External parasites
3. Anthelmintics
4. Insecticides

J. Swine Industry
1. History
2. Breeds
3. Production practices and reproduction
4. Restraint
5. Feeding
6. Diseases
7. Parasites

K. Food Animal Anesthesia, Blood Collection, and Treatment Techniques
1. Anesthetics
2. Tranquilizers
3. Local anesthesia
4. Blood collection

L. Poultry as Food Animals
1. Species and breeds
2. Anatomy
3. Reproduction
4. Management practices
5. Diseases
6. Parasites
M. Alternative Farming Practices

1. Ratites (ostrich, emu, rhea)
2. Elk and deer
3. Llama and alpaca
4. Other exotics

IV. UNIT OBJECTIVES

As recommended by the Committee on Veterinary Technician Education and Activities (CVTEA), upon completion of this course, the student will be able to:

A. Beef Industry and Breeds

1. Recognize the importance of the beef industry in the U.S.
2. Demonstrate knowledge of external anatomy of cattle.
3. Demonstrate knowledge of common cattle breeds.

B. Systems of Beef Production

2. Demonstrate knowledge of uses of dual purpose cattle.
3. Demonstrate knowledge of how veal is produced.
4. Demonstrate knowledge of how quality beef is produced.
5. Demonstrate knowledge of chemicals used to enhance growth.
6. Demonstrate knowledge of systems used to grow young cattle.
7. Demonstrate knowledge of basic equipment available for use in housing and restraint of cattle.

C. Nutrition and Parasites

1. Demonstrate knowledge of the nutritional needs of beef cattle and common feeds used to satisfy those needs.
2. Knowledge of the ruminant digestive system.
3. Knowledge of objectives of various feeding programs.
4. Knowledge of criteria used in judging the quality of beef.

D. Diseases and Disorders of Cattle

1. Demonstrate knowledge of various diseases, their causative agents and methods of prevention or control. Also, the possible human (zoonotic) dangers involved.
2. Demonstrate knowledge of commonly available vaccinations and their uses.

E. Cattle Reproduction

1. Knowledge of basic cattle anatomy.
2. Knowledge of age and influence of reproduction.
3. Knowledge of accepted breeding systems and physiology of reproduction.
4. Knowledge of normal process of parturition as well as problems associated with parturition.
5. Knowledge of methods of fertility examination of males and females.

F. Dairy Industry

1. Knowledge of the basic history of dairy farming in the U.S.
2. Recognition of various breeds of dairy cattle.
3. Nutritional requirements of dairy cattle.

G. Goat Management
1. Knowledge of the basics of the goat industry in the U.S.
2. Knowledge of major breeds of goats.

H. Sheep Industry
1. Recognize breeds of domestic sheep.
2. Physiology of sheep reproduction.
3. Knowledge of major management systems.
4. Knowledge of major diseases, their causative agents, effects on sheep, and their significance to the human population.

I. Ruminant Parasites
1. Knowledge of the significance of internal parasites in ruminants.
2. Knowledge of commonly used dewormers and deworming strategies.
3. Demonstrate knowledge of and recognize common external parasites.
4. Demonstrate knowledge of commonly used insecticides.

J. Swine Industry
1. Knowledge of present pork production characteristics.
2. Recognize major breeds of swine.
3. Knowledge of the physiology of swine reproduction with respect to breeding, gestation, farrowing, boar care, and artificial insemination.
4. Knowledge of the basic nutritional needs of swine.
5. Knowledge of the normal anatomy of the gastrointestinal tract.
6. Knowledge of special feed requirements for swine.
7. Knowledge of the current methods of commercial pork production.
8. Knowledge of the major systems; especially those pertaining to feeder pig production, finishing programs, and purebred operations.

K. Food Animal Anesthesia, Blood Collection, and Treatment Techniques
1. Knowledge of common anesthetics used in food animals.
2. Knowledge of any pertinent anatomy that pertains to anesthetizing food animals.
3. Knowledge of local nerve blocks.
4. Knowledge of common sites for blood collection on various food animals.

L. Poultry as Food Animals
1. Demonstrate knowledge of various poultry species.
2. Knowledge of any pertinent anatomy.
3. Knowledge of commonly used management and reproductive practices.
4. Knowledge of common poultry diseases and parasites.

M. Alternative Farming Practices
1. Knowledge of various exotic species being farmed.

V. METHOD(S) OF INSTRUCTION
A. Lecture: F 10:00-11:50 a.m.
B. Lab: F 12:00-1:50 p.m., 2:00-3:50 p.m.
C. Textbooks, Audio-visual aids, PowerPoint Presentations, Live Animal Models for Laboratory Instruction

VI. REQUIRED TEXTS
C. Principles and Practices of Veterinary Technology, 2nd ed., Sirois
D. Diagnostic Parasitology for Veterinary Technicians, Colville

VII. REQUIRED MATERIALS
A. Required textbooks, audio-visual aids
B. Handouts prepared by the Veterinary Technology instructor
C. Audio-visual aids

VIII. SUPPLEMENTAL REFERENCES
Materials for research projects are available in Jefferson College Library and within the Veterinary Technology Department. Journals within the department are kept for student use.

IX. METHOD(S) OF EVALUATION
A. Distribution of Final Grade
   80% Written Examinations and Comprehensive Final Examination
   20% Laboratory Participation & Competency

   Students are expected to complete the course with at least a grade of C. Students who make a grade below a C will be dropped from the program and invited to re-enroll as second year students and thus repeat the course the following year.

   Any student found in noncompliance with the Jefferson College Honesty Policy as delineated in the Jefferson College and Veterinary Technology Student Handbooks will receive a grade of F regardless of concurrent academic standing.

B. Assignment of Final Letter Grades
   A = 90-100
   B = 80-89
   C = 70-79
   D = 60-69
   F = below 60

X. ATTENDANCE POLICY
A. Student attendance is mandatory. There are no excused absences. Two classes (either lab or lecture) can be missed with no penalty. Ten or more lab or class absences result in a grade of an F for the course. Lab and Problem Solving Sessions cannot be made up, regardless of the reason for absence.
B. Students are permitted to miss one exam date with no penalty. Make up exams are taken in the Assessment Center within 3 days of the original exam. For each subsequent exam missed, the student is penalized 10% of the total value of that exam (one letter grade).

C. Failure in assigned animal care dates or failure in ANY assigned clinical duties results in the loss of one lab grade.

D. The instructor may make exceptions to this policy in certain cases, i.e., illness requiring hospitalization, death in the family, etc.

XI. ADA STATEMENT

Any student requiring special accommodations should inform the instructor and the Coordinator of Disability Support Services (Library; phone (636) 797-3000, ext. 169).

XII. ACADEMIC HONESTY STATEMENT

All students are responsible for complying with campus policies as stated in the Student Handbook (see Jefferson College Website) http://www.jeffco.edu/jeffco/index.php?option=com_weblinks&catid=26&Itemid=84