

# V T 61: ANIMAL DISEASES

## Foothill College Course Outline of Record

Heading	Value
Effective Term:	Summer 2021
Units:	6
Hours:	6 lecture per week (72 total per quarter)
Prerequisite:	BIOL 41.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	CSU
Grade Type:	Letter Grade Only
Repeatability:	Not Repeatable

## Student Learning Outcomes

- Know and explain the basic pathophysiology of the common diseases of domestic animals.
- Identify common ecto- and endoparasites of domestic animals and explain the clinical significance of each to veterinary patients.

## Description

Study of the common diseases of domestic animals with emphasis on the dog and cat. Practical medical microbiology, clinical immunology, and mechanisms of disease; the host-parasite relationship and adaptive and maladaptive responses of the host. Etiology, pathogenesis, clinical signs and clinical nursing management of selected diseases using a systems approach. Principles of vaccination, disease prevention, public health, client education, and zoonosis. Diagnostic techniques, including gross and microscopic identification of common veterinary pathogens. Intended for students in the Veterinary Technology Program; enrollment is limited to students accepted in the program.

## Course Objectives

The student will be able to:

- Describe physiology of the immune system and immune functions within specific organ systems.
- Explain how vaccinations protect animals from disease.
- Explain the role of veterinary technicians in the compassionate nursing care of patients.
- Explain the etiology, pathogenesis, clinical signs, diagnostics, treatment, nursing assessments and clinical management of selected diseases organized by body systems.
- Describe select infectious and parasitic diseases of domestic animals, including etiology, mode of transmission, natural history or life cycle, pathogenesis, clinical signs, diagnostic procedures and clinical nursing management.
- Explain the role of the veterinary technician in "One Health."
- Identify common pathogenic organisms by gross and microscopic examination.
- Create a plan for learning about disease and the role of the veterinary nurse.

## Course Content

- Immune system and immune functions
  - Homeostasis

- Normal anatomy and physiology in wellness
  - Pathology and pathophysiology in disease
- The evolution of disease
    - Stressors: causes of cellular adaptation, injury and death
    - Adaptive/maladaptive responses to stressors
  - Importance of signalment
  - Signs of disease
    - Non-specific
    - Localizing
  - Classification of disease processes
    - Vaccination
      - Sources of infection
        - Animal sources
        - Vectors
        - Inanimate sources
      - Contamination vs. infection
      - Transmission of disease
        - Direct transmission
        - Indirect transmission
      - Common portals of entry
      - Contamination prevention
        - Aseptic technique
        - Universal precautions
      - Host-pathogen interactions
        - Clinical classification of organisms
        - Pathogenic organisms
        - Host defenses
        - Immunity
        - Inflammation
        - Role of the veterinary technician
    - Veterinary technicians and compassionate nursing care of patients
      - Veterinary technician practice model
        - Nursing assessments
        - Nursing interventions
      - Selected diseases organized by body systems
        - Cardiovascular system diseases
          - Pathophysiology
          - Clinical signs
          - Diagnostics
          - Nursing assessments
          - Treatment and nursing interventions
          - Client education
        - Respiratory system disease
          - Pathophysiology
          - Clinical signs
          - Diagnostics
          - Nursing assessments
          - Treatment and nursing interventions
          - Client education
        - Integumentary
          - Pathophysiology
          - Clinical signs
          - Diagnostics
          - Nursing assessments
          - Treatment and nursing interventions
          - Client education
        - Gastrointestinal system
          - Pathophysiology
          - Clinical signs
          - Diagnostics
          - Nursing assessments
          - Treatment and nursing interventions

- f. Client education
- 5. Renal system
  - a. Pathophysiology
  - b. Clinical signs
  - c. Diagnostics
  - d. Nursing assessments
  - e. Treatment and nursing interventions
  - f. Client education
- 6. Endocrine
  - a. Pathophysiology
  - b. Clinical signs
  - c. Diagnostics
  - d. Nursing assessments
  - e. Treatment and nursing interventions
  - f. Client education
- 7. Musculoskeletal
  - a. Pathophysiology
  - b. Clinical signs
  - c. Diagnostics
  - d. Nursing assessments
  - e. Treatment and nursing interventions
  - f. Client education
- 8. Neurologic
  - a. Pathophysiology
  - b. Clinical signs
  - c. Diagnostics
  - d. Nursing assessments
  - e. Treatment and nursing interventions
  - f. Client education
- 9. Reproductive system
  - a. Pathophysiology
  - b. Clinical signs
  - c. Diagnostics
  - d. Nursing assessments
  - e. Treatment and nursing interventions
  - f. Client education
- E. Infectious and parasitic diseases of domestic animals
  - 1. Pathophysiology
  - 2. Clinical signs
  - 3. Diagnostics and identification
  - 4. Nursing assessments
  - 5. Treatment and nursing interventions
  - 6. Client education
- F. "One Health"(One Medicine)
  - 1. Common zoonotic and vector-borne diseases
  - 2. Veterinary technician's role in public health and zoonoses
- G. Identify common pathogenic organisms by gross and microscopic examination
- H. Create a plan for learning about disease and the role of the veterinary nurse

## Lab Content

Not applicable.

## Special Facilities and/or Equipment

- A. Veterinary instructional software and access to subscription online learning resources.
- B. Fully equipped classroom with teaching station and internet access.

## Method(s) of Evaluation

- Weekly quizzes
- Two mid-term written examinations, a written final examination
- Comprehensive practical written and slide show exam
- Case studies as individual or group assignments
- One-page written assignments related to topics of study completed online
- In-course journal club

## Method(s) of Instruction

- Lecture
- Discussion
- Collaborative workshops
- Journal discussions

## Representative Text(s) and Other Materials

Bassert, Joanna, Angela Beal, and Oreta Samples. McCurnin's Clinical Textbook for Veterinary Technicians, 9th ed.. 2018.

Summers, Alleice. Common Diseases of Companion Animals, 4th ed.. 2020.

Hendrix, Charles M., and Ed Robinson. Diagnostic Parasitology for Veterinary Technicians, 5th ed.. 2016.

Merck Veterinary Manual, [www.merckvetmanual.com](http://www.merckvetmanual.com)

## Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

- A. Weekly reading assignments from textbooks and online resources, ranging from 80-100 pages per week
- B. Writing assignments (some or all of the following projects may be assigned):
  - 1. Written nursing assessments and treatment plans for a variety of diseases
  - 2. One-page written assignments related to topics of study completed online
  - 3. Written short answer essay questions
- C. Participation in a journal club for this course
- D. One-health project may be developed as a group assignment

## Discipline(s)

Registered Veterinary Technician