

Course discipline/number/title: VT 2930: Applied Pharmacology and Diseases

A. CATALOG DESCRIPTION

1. **Credits:** 2

2. **Hours/Week:** 1 lecture, 2 lab

3. **Prerequisites (Course discipline/number):** VT 1610, VT 1710, VT 2230, VT 2920

4. **Other requirements:** To enroll in this course, all previous required courses must have been completed with grade of C or better.

5. **MnTC Goals (if any):** NA

B. COURSE DESCRIPTION: This course will introduce the regulations controlling the use of biological and pharmaceuticals in the management of animal disease. Additional topics will include rationale and precautions for therapeutic use of pharmaceutical with an applied approach. Incorporation of mentoring techniques for first year students will be added to other husbandry techniques. Emphasis will be on teamwork, communication, preventive health care and health problem assessments, and clinical nutrition. This course will include advanced animal nutrition and the concepts of clinical nutrition. Dietary management of various nutritional diseases for small animals will be explored. Attendance is required for successful completion of this course. To enroll in this course, all previous required courses must have been completed with grade of C or better.

C. DATE LAST REVISED (Month, year): November, 2022

D. OUTLINE OF MAJOR CONTENT AREAS:

1. Management of animal diseases
2. Applied therapeutic pharmacology
3. Health prevention
4. Applied nursing care
5. Animal nutrition
6. Adverse reaction to foods
7. Feeding problems
8. Inherited disorders of nutrients and metabolism
9. Nutrition and gastrointestinal disorders
10. Nutrition and the management of heart disease
11. Nutrition and management of skeletal development in young dogs
12. Nutrition in the management of weight control
13. Nutrition in the management of urinary disorders
14. Nutrition and canine cancer

E. LEARNING OUTCOMES (GENERAL): The student will be able to:

1. Identify management of animal diseases.
2. Demonstrate proper administration of medication.
3. Apply animal care principles utilizing pharmaceuticals in a hands-on setting.
4. Describe nutrient effect on the health of an animal.
5. Identify dietary needs for specific diseases.
6. Apply prophylactic or therapeutic dietary management plans.
7. Identify the proper steps for enteral feeding.
8. Identify the role of nutrition in the cause of diseases.
9. Apply feeding protocols that are recommended for specific recognized diseases.
10. Identify the interrelationships that dietary management and drug therapy can have on animal diseases.
11. Identify food characteristics that are beneficial to the management of disease.
12. Utilize effective communication to explain clinical nutrition requirements.
13. Apply principles of clinical nutrition management.
14. Demonstrate placement of an orogastric tube.

F. LEARNING OUTCOMES (MNTC): NA

- G. METHODS FOR EVALUATION OF STUDENT LEARNING:** Methods may include but are not limited to:
1. Laboratory reports
 2. Examinations written and practical
 3. Course assignments
 4. Group work/projects
- H. RCTC CORE OUTCOME(S).** This course contributes to meeting the following RCTC Core Outcome(s):
Critical Thinking. Students will think systematically and explore information thoroughly before accepting or formulating a position or conclusion.
- I. SPECIAL INFORMATION (if any):**
The initial lab session explains and familiarizes the student with general safety hazards and safety equipment to the lab. During the pre- lab discussion, the hazardous characteristics of any materials used during a lab are discussed. In addition, if the lab involves any potentially infectious or zoonotic material, the students will be instructed on the proper use and disposal. The instructor will direct all students to where necessary protective equipment while working with any hazardous chemicals. A copy of Material Safety Data Sheets for chemicals used is available in the lab.