

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Principles of Pharmacology

Course #: VET* 250

Course Description: 3 credits (3 lecture hours)

This course provides an overview of the more commonly prescribed medications as they relate to specific body systems. Topics include practices governing the use, dispensing, administration, and storage of pharmaceuticals. Terminology relating to drugs and administration of drugs is emphasized. The student will understand mechanisms of drug actions, common drug interactions and side effects, and will become familiar with the more commonly prescribed drugs. The student will be able to perform basic mathematical calculations of drug dosages.

Goals: The student will develop the working knowledge of pharmacology necessary for a career in Veterinary Technology. Students will apply the skills gained in pharmacology in laboratory courses that require administering medications to live animals and calculating drug dosages. Satisfactory completion of Principles of Pharmacology will prepare the student for the pharmacology questions of the National Veterinary Technician Exam.

Outcomes: Upon successful completion of this course, the student will be able to:

- State the legalities involving medications that govern veterinary technicians.
 - Name the organizations that regulate controlled substances and prescription drugs in the United States and describe the role of these agencies
 - Explain the sources from which veterinary practices may legally purchase biologicals, drugs, and pesticides that will be dispensed to clients.
 - Describe the manufacturer's label statements for prescription and OTC drugs
 - Define the VCPR and AMDUCA and explain how their effects on the ability to dispense prescription medications to clients for use on veterinary patients.
 - Define extra-label drug use
 - Describe the legal liabilities and limitations that must be considered when selling prescription or therapeutic diets.
 - Describe how to store biologics, OTC products, and prescription medications in a veterinary practice.
 - Identify controlled substances and determine to which Schedule they belong based upon manufacturer's labeling.
 - Describe how to properly store controlled drugs in a veterinary practice, how to dispose of these drugs, and the procedures used to transfer controlled substances between facilities.
 - Document administered medications in a simulated controlled substances log.
 - State how frequently controlled substances must be inventoried by Federal and State Law, and describe how the inventory procedure is performed.
 - Define what is meant by milk and meat withdrawal periods and list sources available to determine appropriate withdrawal times.
 - Describe the appropriate methods to dispose of expired drugs, vaccines, and pesticides.

- Demonstrate the appropriate disposal of needles, syringes, and biologicals.
- Interpret medication labels, veterinarians' orders, and prescriptions
 - Define the common abbreviations used in prescriptions
 - Using simulated drugs, correctly fill a written medication order, including selecting the ordered medication from the pharmacy, correctly counting the medication for oral administration, and correctly packaging the medication including properly filling out the prescription label.
 - Correctly measure volume for parenteral injections including choosing the appropriate syringe and needle.
 - Identify prescription vs. OTC drugs based upon manufacturer's labels.
- Accurately perform drug calculations
 - Calculate the proper dosage ordered given drug labels
 - Accurately convert weights, volumes, and body surface area within/between the metric, English, household and apothecary systems.
 - Given an animal's weight, dosage rate and concentration of the drug, accurately determine a drug dose for tablets, capsules, and liquids, and calculate the total number of tablets/capsules/boluses or total volume of liquid that must be dispensed.
 - Accurately calculate the amount of solute needed to create a solution of a given concentration.
 - Accurately calculate the amount of diluent that needs to be added to a stock solution to acquire a given concentration.
- Explain routes and methods of administration
 - Define parenteral and enteral
 - List the properties of drugs that affect drug administration and route selection via the IV, IM, SQ, and enteral routes
 - List species and breed differences that affect drug selection and route of administration
- Describe drugs used in veterinary clinical practice
 - Demonstrate the use of the Physician's Desk Reference, the Compendium of Veterinary Products, and Veterinary Pharmaceuticals and Biologicals
 - Identify commonly used drugs in veterinary practice, classify them based upon therapeutic use, describe their mechanism of action, and describe adverse side effects of each drug.
 - Discuss the more commonly used vaccines including mechanism, implications, routes of administration, effects, and client education.
 - List possible adverse reactions to vaccination and describe proper management of patients exhibiting local and systemic reactions.

College Policies

Plagiarism: Plagiarism and Academic Dishonesty are not tolerated at Northwestern Connecticut Community College. Violators of this policy will be subject to sanctions ranging from failure of the assignment (receiving a zero), failing the course, being removed/expelled from the program and/or the College. Please refer to your "Student Handbook" under "Policy on Student Rights," the Section entitled "Student Discipline," or the College catalog for additional information.

Americans with Disabilities Act (ADA): The College will make reasonable accommodations for persons with documented learning, physical, or psychiatric disabilities. Students should notify Dr. Christine Woodcock, the Counselor for Students with Disabilities. She is located at Green Woods Hall, in the Center for Student Development. Her phone number is 860-738-6318 and her email is cwoodcock@nwcc.edu.

School Cancellations: If snowy or icy driving conditions cause the postponement or cancellation of classes, announcements will be made on local radio and television stations and posted on the College's website at www.nwcc.edu. Students may also call the College directly at **(860) 738-6464** to hear a recorded message concerning any inclement weather closings. Students are urged to exercise their own judgment if road conditions in their localities are hazardous.

Use of Electronic Devices: *Some course content as presented in Blackboard Learn is not fully supported on mobile devices at this time. While mobile devices provide convenient access to check in and read information about your courses, they should not be used to perform work such as taking tests, quizzes, completing assignments, or submitting substantive discussion posts.*

Sexual Assault and Intimate Partner Violence Resource Team: NCCC is committed to creating a community that is safe and supportive of people of all gender and sexual identities. This pertains to the entire campus community, whether on ground or virtual, students, faculty, or staff. Sexual assault and intimate partner violence is an affront to our national conscience, and one we cannot ignore. It is our hope that no one within our campus community will become a victim of these crimes. However, if it occurs, NCCC has created the SART Team - Sexual Assault and Intimate Partner Violence Resource Team - to meet the victim's needs.

SART is a campus and community based team that is fully trained to provide trauma-informed compassionate service and referrals for comprehensive care. The team works in partnership with The Susan B. Anthony Project to extend services 24 hours a day, 7 days a week throughout the year.

The NCCC team members are:

Ruth Gonzalez, PHD	860-738-6315	Greenwoods Hall Room 220
Susan Berg	860-738-6342	Greenwoods Hall Room 223
Kathleen Chapman	860-738-6344	Greenwoods Hall Room 110
Michael Emanuel	860-738-6389	Founders Annex Room 308
Gary Greco	860-738-6397 (V) 860-469-3138 (VP)	Founders Hall Room 101
Robin Orloski	860-738-6416	Business Office Room 201
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103

At NCCC we care about our students, staff and faculty and their well-being. It is our intention to facilitate the resources needed to help achieve both physical and emotional health.

Reasonable Accommodation of Religious Practices: Students have an obligation to notify the instructor in a timely manner regarding anticipated absences for religious observances. Requests

should be made in writing stating the reason for the request, i.e., conflict with scheduled quiz, test, exam, assignment or activity, the religious observance that poses the conflict and the date or dates of such holiday. (LIM #2009-1)