

NORTHWESTERN CONNECTICUT COMMUNITY COLLEGE

COURSE SYLLABUS

Course Title: Veterinary Laboratory Procedures Lecture AND Vet Procedures Lab

Course #: VET*205 and VET*205L

Course Description: 3 semester hours (2 hrs lecture/3 hrs lab) A study of veterinary clinical laboratory procedures including specimen collection, hematology, cytology, blood chemistry, urinalysis, and necropsy technique. Immunology and serology will also be discussed. Lecture incorporates heavy use of PowerPoint images of blood smears, urine, and cytology to aid in identification of cells and structures in the laboratory.

The primary source of blood and urine samples for laboratory will be surgery patients from VET*230 L, Anesthesia and Surgical Nursing Lab. In addition, field trips may be required to collect samples for lab.

Pre-requisite: MED* 125, VET* 151, and 152 or by permission

Co-requisite: VET*205 and VET*205L must be taken together.

Goals: This course is intended to provide the student with an understanding of the theory and the practical skills necessary to perform routine veterinary laboratory procedures

Outcomes: Upon completion of this course the student should be able to:

- explain the technician's role in the clinical lab setting
- demonstrate an understanding of clinical laboratory theory and its practical applications in veterinary medicine
- demonstrate an understanding of laboratory safety, quality control, and occupational hazards
 - describe how quality control would be implemented for common laboratory procedures
 - describe and demonstrate OSHA recommendations for safety including Personal Protective Equipment and handling of contaminated sharps and biomedical hazardous waste.
 - Describe proper handling of specimens to prevent transmission of zoonoses
 - Describe the safety plan and methods for decontaminating a spill in the laboratory.
- collect various specimens for analysis
 - identify the correct sample and container
 - demonstrate proper post-collection sample handling
 - collect voided urine samples from cats, dogs, and/or other available species
 - explain the advantages and disadvantages of cystocentesis, catheterization, and voided urine samples
- discuss proper laboratory techniques
 - list equipment needed for commonly performed in-house laboratory procedures
 - describe proper maintenance for this equipment

- competently perform a complete CBC, including indices, platelet and reticulocyte counts
 - collect and prepare samples for evaluation, including choosing the proper blood collection tube
 - properly perform hemoglobin, PCV, total protein, manual WBC, and automated CBC
 - perform microscopic examination of blood film.
 - Perform leukocyte differential and distinguish normal from abnormal findings
 - Evaluate erythrocyte morphology and distinguish normal from abnormal
 - Estimate platelet numbers
 - Calculate absolute values of WBCs and platelets
 - Correct WBCs for nucleated RBCs
 - Calculate MCV, MCH, and MCHC and recognize normal vs. abnormal results
 - Perform reticulocyte count using the correct equipment and stain, correctly perform calculations, and explain the significance of the results
 - Perform a manual and an automated platelet count
 - Properly calculate the platelet count with the manual method
 - Explain the significance of the platelet count and distinguish normal from abnormal results
- Perform an activated clotting time (ACT) test
 - Identify the proper equipment used in the evaluation
 - Competently carry out the test
 - Explain the significance of the results
- understand blood chemistry testing and the application of obtained results
- demonstrate an understanding of immunologic concepts and perform various testing procedures
- competently perform a urinalysis; including sediment evaluation
 - list descriptive terms used for physical examination of urine
 - measure specific gravity and explain the significance of it
 - identify the types of cells seen in microscopic examination of urine sediment
 - identify microorganisms and parasites that may be seen in urine
- understand cytological examinations, collection, and slide preparation
- competently set up a fecal and examine for parasites
- understand euthanasia techniques, necropsy techniques, and the proper disposal of dead animals

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, Ph.D.	860-738-6315	Green Woods Hall Room 207
Susan Berg	860-738-6342	Green Woods Hall Room 223
Kathleen Chapman	860-738-6344	Green Woods Hall Room 110
Michael Emanuel	860-738-6389	Founders Annex Room 308
Seth Kershner	860-738-6481	Library
Robin Orlomoski	860-738-6416	Business Office Room 201
Jane O'Grady	860-738-6393	Founders Hall Annex Room 212
Patricia Bouffard, Ex-Officio	860-738-6319	Founders Hall Room 103
Savannah Schmitt		Student Representative

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.