

**PROGRAM INFORMATION**

<b>Academic Year</b>	2024 – 2025
<b>Credential</b>	Ontario College Diploma
<b>Program Delivery</b>	Full - Time
<b>Duration</b>	2 Years
<b>Length</b>	4 Semesters
<b>Program Code</b>	H058 (HL) – Haileybury Campus

**DESCRIPTION**

The Ontario Association of Veterinary Technicians (OAVT) and the Canadian Veterinary Medical Association (CVMA) accredit the Veterinary Technician program. This two-year diploma combines intensive coursework in animal sciences with hands-on clinical training in various environments.

Students learn fundamental veterinary technology skills such as animal care and behavior, anatomy and physiology, pharmacology, animal nutrition, and diagnostic imaging. The curriculum also emphasizes ethics and communication to prepare students for the challenges of veterinary practice with professionalism and empathy. Experienced professionals lead classes, sharing practical insights to help students prepare effectively for their future careers.

Practical skills are a cornerstone of the program, with extensive lab sessions and externships allowing students to apply their knowledge in real-world scenarios. They gain proficiency in essential techniques like physical examinations, administering medications, venipuncture, anesthesia, patient monitoring, and assisting in surgeries.

Upon completion of the program, graduates are ready to take the Veterinary Technician National Examination (VTNE) and pursue registration from the OAVT to become a Registered Veterinary Technician, opening the door to a rewarding career in various settings, including private practices, research institutions, and zoos. Learn more about what an RVT is and what RVTs do from the Ontario Association of Veterinary Technician's website at <https://oavt.org/about/what-is-an-rvt/>.

Our Veterinary Technician graduates are given priority for admission into our third-year programs, which include [Wildlife Rehabilitation](#) and [Companion Animal Physical Rehabilitation](#).

Our Veterinary Technician program is accredited by:



## CAREER OPPORTUNITIES

Graduates may find employment as veterinary technicians working in veterinary practices, humane societies, public or private zoos, research facilities, telemedicine or with federal and provincial governments. They may also work as sales representatives for veterinary companies.

## VOCATIONAL LEARNING OUTCOMES

1. Participate in facility management utilizing traditional and electronic media and appropriate veterinary medical terminology and abbreviations.
2. Communicate effectively and accurately in a professional manner in all formats - written, oral, non-verbal and electronic.
3. Follow and uphold applicable laws and the OAVT's code of ethics to maintain high ethical standards so that high quality care is provided to patients, clients, employers and the veterinary profession.
4. Safely and effectively administer and dispense prescribed drugs to patients.
5. Demonstrate and perform patient assessment techniques with minimum stress and maximum safety in a variety of animal species so that objective and subjective data is accurately obtained.
6. Demonstrate and perform husbandry, nutrition, therapeutic and dentistry techniques appropriate to various animal species as directed but the veterinarian in order to enhance wellness and achieve maximum health benefits for the patient.
7. Safely and effectively select, utilize and maintain anesthetic delivery and monitoring instruments and equipment to provide maximum benefit and safety to the patient and staff.
8. Safely and effectively manage and maintain patients in all phases of anesthesia providing for adequate anesthesia, analgesia and safe recovery.
9. Understand and integrate all aspects of patient management for common surgical procedures in a variety of animal species (ovariohysterectomy in dogs and cats, and orchietomies in the dog, cat and other common species).
10. Provide the appropriate instruments, supplies and environment to maintain asepsis during surgical procedures to ensure maximum safety and benefit to the patient.
11. Demonstrate knowledge of proper handling, packaging and storage of specimens for laboratory analysis to ensure safety of patients, clients, and staff.
12. Safely and effectively produce diagnostic radiographic and non-radiographic images using non manual restraint where possible to ensure maximum diagnostic benefit and minimize personnel radiation exposure.
13. Safely and effectively handle common laboratory animals used in animal research.
14. Describe provision of safe and effective care for birds, reptiles, amphibians, guinea pigs, hamsters, gerbils, and ferrets.

## PROGRAM COURSES

The following reflects the planned course sequence for full-time offerings of the program. Programs at Northern College are delivered using a variety of instruction modes. Courses may be offered in the classroom or lab, entirely online, or in a hybrid mode which combines classroom sessions with virtual learning activities.

<b>Semester 1</b>		<b>Hours</b>
GN1083	Managing for Success	42
VA1001	Animal Behaviour	14
VA1043	Client Relations	42
VT1002	Clinical Calculations I	28
VT1005	Laboratory Procedures and Techniques	70
VT1011	Kennel Duty I	14
VT1013	Clinical Studies I	42
VT1032	Necropsy Lab (A&PI)	14
VT1034	Animal Anatomy and Physiology I	56
VT2032	Clinical Exercises I	28
<b>Semester 2</b>		
GN1443	Indigenous Culture and Awareness	42
VT1012	Animal Nutrition and Digestion	28
VT2002	Clinical Calculations II	28
VT2005	Laboratory Procedures and Techniques II	70
VT2011	Kennel Duty II	14
VT2033	Clinical Studies II	42
VT2034	Animal Anatomy and Physiology II	56
VT2051	Field Placement I	80
VT2052	Clinical Exercises II	28
VT2062	Necropsy Lab II	14
VT2083	Radiology I	42
VT4093	Dentistry I	42
<b>Semester 3</b>		
	General Education Elective	42
GN1011	Employment Preparation	14
VT1001	Registered Veterinary Technician Prep I	14
VT2042	Management Technology	28
VT3005	Laboratory Procedures and Techniques III	70
VT3022	Laboratory Animal	28
VT3031	Kennel Duty III	14
VT3032	Clinical Exercises III	28
VT3053	Surgical Exercises I	42
VT3063	Pharmaceutical Principles I	42
VT3083	Radiology II	42
VT3093	Clinical Studies III	42

VT3133	Veterinary Technician Surgery	42
VT4075	Large Animal Medicine	70

## Semester 4

VT4000	Field Placement II	160
VT4005	Laboratory Procedures and Techniques IV	55
VT4011	Kennel Duty IV	11
VT4021	Registered Veterinary Technician Prep II	11
VT4033	Surgical Exercises II	33
VT4042	Clinical Exercises IV	22
VT4063	Pharmaceutical Principles II	33
VT4113	Radiology III	33
VT4123	Dentistry II	33
VT4143	Clinical Studies IV	33
VT4153	Wildlife and Exotics	33

## PROGRAM PROGRESSION

The following reflects the planned progression for full-time offerings of the program.

### Fall Intake

- Sem 1: Fall 2024
- Sem 2: Winter 2025
- Sem 3: Fall 2025
- Sem 4: Winter 2026

## WORK INTEGRATED LEARNING OPPORTUNITIES

During the program's two years, students will have the opportunity to visit cattle and horse farms and care for companion animals, including lab animals such as rats and rabbits.

At the culmination of year one, students are placed in clinical environments for an immersive experience within a veterinary clinic setting. Students assist with routine examinations, observe surgical procedures, and interact with clients while gaining valuable hands-on experience in animal care and medical procedures. As students complete their second year of the diploma program, they embark on a more advanced field placement designed to deepen their clinical competencies and expand their scope of practice. This field placement challenges students to apply critical thinking skills, highlight their knowledge of new technologies, and demonstrate professionalism and teamwork. By the end of this placement, students will have emerged with a heightened level of confidence, proficiency, and readiness to excel as veterinary technicians.

## ARTICULATION/TRANSFER AGREEMENTS

A number of articulation agreements have been negotiated with universities and other institutions across Canada, North America and internationally. These agreements are assessed, revised and updated on a regular basis. Please contact the program coordinator for specific details if you are interested in pursuing such an option. Additional information can be found at [Articulation Agreements](#).

## ADDITIONAL INFORMATION

Please apply by February 1<sup>st</sup> for your best chance of obtaining a seat in the program.

This program is physically and mentally demanding. Please review the Key Factors for Your Success in this Program and the Veterinary Technician Requirements document.

### Key Factors for Your Success in this Program

- Typically spend two hours of studying outside of class for each hour of instruction, approximately 20-25 hours/week.
- Strong math, basic sciences, and english language skills. Students who have not taken higher level (university, university/college) courses in secondary school tend to have more difficulty with the program.
- Manage time and work
- Take direction and accomplish tasks efficiently
- Work with others as a member of a team and in a leadership role
- Combine compassion, knowledge and dedication to provide quality animal nursing care
- Good communication and interpersonal skills to develop professional relationships with coworkers and clientele
- Must be able to lift and carry up to 25kg, work in a physically demanding environment and stand for long periods of time
- Be comfortable working in an environment where you may be assisting or performing medically invasive procedures and dealing with animal bodily fluids, lab specimens, etc.
- While not necessary for admission, exposure to work carried out in a veterinary clinic helps students realistically understand whether this program – or our Veterinary Assistant or Animal Grooming programs are a better fit for them.

## PROGRAM SPECIFIC REQUIREMENTS

### Veterinary Technician Requirements

## ADMISSION REQUIREMENTS

- Ontario Secondary School Diploma (OSSD)
- Grade 12 English (C, U)
- Grade 12 Math (C, U)
- Grade 12 Chemistry (C, U) (will accept Grade 11 “U” Chemistry in place of Grade 12 “C” Chemistry)
- Grade 11 Biology (C, U)
- Minimum 60% GPA required in all pre-requisite courses
- Or equivalent

Academic prerequisites for this program may be obtained free of charge through [Academic Upgrading](#). Applicants who do not have a high school diploma or equivalent and will have reached the age of 19 years on

or before the start of the program must undergo academic testing and may be required to complete [Prior Learning Assessment & Recognition \(PLAR\)](#) process to demonstrate equivalency of admission requirements prior to admission into a program. For more details, please contact the Admissions Office at 705-235-7222 or [admissions@northern.on.ca](mailto:admissions@northern.on.ca).

## Additional Admissions Requirements

- Proficiency in word processing recommended
- Rabies vaccine series and titre prior to start of program (at student's expense)
- Some experience in a veterinary clinic or hospital is considered an asset

We strongly encourage applicants to obtain 20 hours of volunteer work in a veterinary hospital or clinic wherever possible. It is not a firm requirement, but we encourage it since work experience will be an advantage to program applicants. It helps you better understand your own interests and “fit” within our range of veterinary sciences programs and the tasks that graduates are called upon to perform in their duties.

## International Admission Requirements

1. Proof of Senior High School Diploma/Certificate
2. English Proficiency (we will require one of the following):
  - IELTS Academic International English Language Testing System: a minimum overall score of 6.0 must be achieved with no individual band score under 6.0; however, we will accept one band at 5.5.
  - TOEFL (Test of English as a Foreign Language) – Computer-based overall minimum score of 79
  - PTE (Pearson Test of English) Academic – Graduate Diploma: 58+

CO-OP Work Permit is mandatory for this program to participate in unpaid program placements.

If your country of citizenship has English as its official language, we may accept alternate proof of English Proficiency. All educational documents must be submitted in English and will be dependent on the country of citizenship. For more information, please contact [admissions@northern.on.ca](mailto:admissions@northern.on.ca).

## GRADUATION REQUIREMENTS

- 44 Program Courses
- 3 General Education Courses

## GRADUATION ELIGIBILITY

To graduate from this program, a student must attain a minimum of 60% or a letter grade of CR (Credit) in each course in each semester unless otherwise stated on the course outline. Students should consult departmental policies and manuals for additional detail and exceptions.

## GRADUATION WINDOW

Students unable to adhere to the program duration of two years (as stated above) may take a maximum of four years to complete their credentials. After this time, students must be re-admitted into the program, and follow the curriculum in place at the time of re-admission.

## CONTACT INFORMATION

For admission questions, please contact Northern College Admissions at [admissions@northern.on.ca](mailto:admissions@northern.on.ca) or by phone at 705-235-3211 ext. 7222. For questions about the content of the program, contact the Program Assistant.

Kellie Broderick  
Program Assistant, School of Veterinary Sciences  
Tel: 705-672-3376 ext. 8854  
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## Animal Care

Northern College School of Veterinary Science's Standard Operating Procedure outlining the steps taken when animal care and use complaints are brought forward: [Handling Complaints Concerning Animal Care and Use](#).

## COURSE DESCRIPTIONS

### Semester 1

#### **GN1083 Managing for Success**

The course is designed to help students gain insights and skills to promote personal and professional development. Students will develop an understanding of how they manage their lives and incorporate skills to maximize their strengths and reduce the impact of less effective techniques. Students will learn about resources that are available to them and the intelligence of accessing additional support when needed. The content of this course provides students with the opportunity to lay a foundation for lifelong learning; learn to communicate effectively, build and value productive and satisfying diverse relationships and prepare for the challenges and rewards that make life meaningful.

#### **VA1001 Animal Behaviour**

Animal care providers often handle animals with behaviour problems. They must know what advice to give and when to refer the problem to the veterinarian. The technician/assistant/groomer must also know the procedure involved in referral to a behavioural specialist and/or an obedience trainer.

#### **VA1043 Client Relations**

This one semester course is designed for the Animal Grooming, Veterinary Assistant, Veterinary Technician and the Veterinary Technology programs. The course is designed to look at their role in the daily operation of a veterinary practice. The course will include sections on customer service, telephone skills, and welcoming skills, confrontation and conflict resolution. The course will assist students in becoming more comfortable assisting clients through the grief cycle. There will be a component on Client Communication utilizing both oral and written communication in the veterinary practice. This course will have a self-directed on line grammar component. This course will enable the students to practice the skills required for effective work in client relations.

#### **VT1005 Laboratory Procedures and Techniques**

This course is an introduction to laboratory procedures and practice. Students will become familiar with tests commonly and most frequently used in the veterinary laboratory. Students will acquire the proper techniques to perform tests and learn the significance of test results. An understanding of what is considered normal or abnormal will become clear. A large segment of time will be used to become familiar with quality control and the significance of its use. Hematology, sterilization, disinfection and aseptic techniques will be of special focus.

#### **VT1013 Clinical Studies I**

This course is an introduction to the responsibilities of a veterinary technician working in a clinic. It begins by emphasizing safety for both the animal and handler in applying appropriate physical restraint. Students are alerted to other common hazards of the profession, such as those found in anesthesia, radiology and zoonosis. Further areas of study include: taking the history, conducting a physical examination, keeping medical records, animal identification, skin and coat care, vaccination and parasite control. In this course, students learn veterinary terminology so they can communicate with other members of the veterinary team and understand the literature of the profession. The course delineates the different roles for veterinarians, technicians and assistants on the veterinary team and discusses professional organizations that determine the scope of



practice for each. Students are made aware of the continuing education opportunities open to graduate technicians.

### **VT1023 Clinical Calculations I**

This first calculations course focuses on mathematical principles, dimensional analysis including unit conversions and the fundamentals of solutions and concentrations. Application from nursing and the veterinary sciences are explored to show where and how mathematical techniques are required in a lab setting.

### **VT1032 Necropsy Lab (A&PI)**

This course is a practical lab that will allow the students to gain hands on experience enhancing the knowledge that they have acquired in Anatomy and Physiology I. The students will learn why and how necropsies are performed and also have a chance to practice sample collection of specimens. The course will use multiple modalities such as cadavers, individual specimens and necropsy manikins (Synclavers).

### **VT1034 Animal Anatomy and Physiology I**

This introductory course begins with the basic principles of living matter and evolves to consider the mammalian body and how it works. While the focus is on the domestic dog and cat, comparative differences between small animals and livestock are covered. By the end of the course, the student has covered the following body systems- integumentary, skeletal, muscular, cardiovascular, lymphatic, respiratory and digestive.

### **VT2032 Clinical Exercises I**

This course is designed to give students the practical skills required to function as veterinary technicians in a clinical environment. Each student will be part of a group that has the responsibility of monitoring hospitalized patients on a daily basis.

## **Semester 2**

### **VT1012 Animal Nutrition and Digestion**

The comparative anatomy and physiology of the digestive systems of domestic animals will be studied. The nutritional requirements of the animal in health and disease with respect to proteins, carbohydrates, fats, water, vitamins and minerals will be discussed. The course will cover feeding procedures and feeds for dogs, cats, cattle and horses.

### **VT2005 Laboratory Procedures and Techniques II**

This course is a continuation of Laboratory Procedures and Techniques I. Students will study clinical chemistry, urinalysis, and cytology while practicing the techniques taught in the first semester. Special care will be placed on understanding the consequence of failure to report accurate results. Confidence limits will be stressed. The final exam for this semester will include material from the first and second semesters.

### **VT2011 Kennel Duty II**

This course will prepare the student to function in a veterinary environment. Students will provide care for the animals owned by Northern College. The use of Standard Operating Procedures will assist the student. The Veterinary Science facility simulates the professional environment and enables the students to learn the skills necessary to function as a productive team member.

## **VT2033 Clinical Studies II**

The role of veterinary professionals in managing behaviour problems of dogs and cats will be examined. The course includes discussion of ways to prevent and treat behavioural problems, as well as the appropriate procedure for referring clients who desire resolution of their animal's behavioural problems. Common problems such as house training, destructive scratching in cats and destructive chewing in dogs are covered. An in depth discussion of anesthesia and analgesia completes the course.

## **VT2034 Anatomy and Physiology II**

A continuation of Anatomy and Physiology I, this course continues with the study of the major body systems, from the nervous system to the reproductive systems. The unifying themes of the interrelationships of body organ system, homeostasis, and the complementary nature of structure and function will provide the basis for understanding the workings of the human body.

## **VT2051 Field Placement I**

The field placement course provides a valuable opportunity for students to experience a veterinary practice first hand. The field placement also permits students to demonstrate and practice their theoretical knowledge, values and skills taught in the classroom and to be evaluated on those competencies. This field placement course provides an opportunity for students to apply and consolidate their education from the first and second semesters of their program of study.

## **VT2052 Clinical Exercises II**

In this competency-based course, students build upon previously acquired skills and increase their efficiency and understanding. While functioning as part of a group, students participate in physical examinations, intramuscular, subcutaneous and intravenous injection techniques, restraint of small animal patients, surgical preparations, anal gland expression, enema administration and taking blood. Students are marked on skill and willingness to participate.

## **VT2053 Animal Anatomy and Physiology II**

The course is a continuation of Animal Anatomy and Physiology I. Together, these courses are designed to give veterinary technician students a fundamental understanding of the parts of the body, how the parts are assembled into body systems and how these systems are controlled and relate to each other. This course completes the study of the body by examining special senses, as well as endocrine, renal, reproductive and immune systems.

## **VT2073 Clinical Calculations II**

This is the second calculations course focusing on drug dosage calculations. The learner will perform calculations to reconstitute drugs, determine dosages based on body weight and body surface area and in the administration of intravenous drugs. Applications from nursing and the veterinary sciences are explored to show where and how mathematical techniques are required in a lab setting.

## **VT2083 Radiology I**

In this course students study the parts and function of x-ray machines, the formation and properties of x-rays, the principles of image formation, radio graphic techniques and radio graphic processing. Standard views and radio graphic anatomy will be studied. Students will be provided with the knowledge required to obtain quality diagnostic radio graphs of small animals. The dangers of radiation and how to avoid radiation injury will be outlined.

## **VT4093 Dentistry I**

This course is intended to be comprehensive, bringing students from relatively little knowledge in veterinary dentistry to a practical working knowledge. The course will include sections on oral examination and disease recognition, dental instruments and equipment, anesthesia and pathogens.

## **Semester 3**

### **General Education Elective**

General Education Courses are selected online each semester by the student from a list provided and exposes students to a related area of study outside of their immediate academic discipline. Certain programs have predetermined electives.

### **GN1011 Employment Preparation**

This course will enable the students to become familiar with specific employment requirements for their field of interest. The students will also have the opportunity to learn how to self-market for job finding, as well as how to maximize their potential for success in an interview situation. This course is designed to assist students in obtaining employment. Students will also learn to prepare themselves for varied Fieldwork Placements. This semester will concentrate on incorporating skills from the Client Relations Course to further develop their interpersonal communication skills through their ability to prepare for an employment interview. The course will also discuss work ethics and the role they play in long term employ ability.

### **VT1001 Registered Veterinary Technician Prep I**

This course consists of weekly study sessions to help graduating students prepare to challenge their professional registry examination, the Veterinary Technician National Examination (VTNE). The content reflects the practice domains covered by the VTNE. It is recognized that acquisition of medical vocabulary is essential in answering many VTNE questions, as is proficiency in basic mathematical calculations. Students will review strategies considered helpful in taking multiple choice tests.

### **VT2042 Management Technology**

The purpose of this course is to develop the skills necessary to effectively use computer programs specific to the veterinary environment. This course will give the student practical skills on specialized veterinary software packages such as AVImark and Impromed. Students will be able to set up files for new clients and/or new patients. They will know how to bill for services and products, print appropriate certificates as well as prescription labels. Accepting payments will be practiced.

### **VT3005 Laboratory Procedures and Techniques III**

This course is a continuation of Laboratory Procedures and Techniques I and II. A review of health and safety standards will help to ensure student's well being and safety. Parasitology, virology and immunology will be stressed. Abnormal hematology and chemistry cases will be reviewed to provide continuing development of laboratory expertise. The final exam for this semester will cover material from the first two semesters as well as the third semester.

### **VT3022 Laboratory Animal**

Students will explore the world of the laboratory animal. Students will learn nursing care and husbandry theory and apply this knowledge to the following species: rats, mice, hamsters, gerbils and guinea pigs.

### **VT3031 Kennel Duty III**

This course is a continuation of Kennel Duty I and II. The student will be responsible for the administration of medications, care and where required, bandaging of the kennel animals.

### **VT3032 Clinical Exercises III**

This course is designed to give students the chance to build on skills already introduced in the first two courses in the Clinical Exercises series.

### **VT3053 Surgical Exercises I**

This course is a practical training session for veterinary technicians to become familiar with anesthesia and surgical procedures. There is a heavy emphasis on supervised hands on experience. The class is divided into small groups for better supervision and learning. Each group is responsible for taking a patient from the preoperative examination and laboratory evaluation through to patient recovery and return to the owner.

### **VT3063 Pharmaceutical Principles I**

This is the first of two courses which together provide a comprehensive review of important groups of drugs used in veterinary medicine. The course begins with general aspects of pharmacology such as the sources of drugs, their modes of action, dosage forms and pharmacokinetics but progresses to discuss in detail those drugs which are used to correct disorders in specific body systems. The student is introduced to specific legislation affecting the storage and dispensing of pharmaceuticals.

### **VT3083 Radiology II**

This course offers students the opportunity to put into practice the knowledge obtained in Radiology I. Students will be placed in small groups and expected to take x-rays using all safety techniques and guidelines as demonstrated by the professor. Students will be evaluated on their professionalism and the quality of the x-rays produced.

### **VT3093 Clinical Studies III**

The veterinary technician student will learn to prepare patients for surgery, and describe how to utilize surgical instruments and equipment. The student will understand the theory of setting up and controlling the surgical site and its environment. Students will be introduced to scrubbing in to assist the veterinarian in surgery. The student will learn how to properly open and handle surgical packs, and suture material. The student will learn the theory of maintaining a sterile environment without causing contamination. The student will learn how to carry out postoperative care, monitoring and final client instructions. Students will learn how to assess, treat, and stabilize an emergency situation by telephone or in the clinic. The student will study how to speak to clients and what procedures are to be carried out in specific emergency situations- bandaging procedures, wound care and when to apply splints, casts and other external supports.

### **VT3133 Veterinary Technician Surgery**

This course is designed to provide practical training for students to become familiar with surgical procedures and to practice dental prophylaxis and anaesthetics learned in lectures. Students will carry out procedures at a veterinary clinic for one 3-hour period once every third week during the semester. The sessions are set up to mirror the normal procedures the veterinary technician student will encounter after graduation. The surgical procedures performed by the students are in keeping with the Canadian Veterinary Medical Association guidelines.

## **VT4075 Large Animal Medicine**

This course considers the basic maintenance and care of large animals. Management techniques for the equine, bovine, ovine and porcine species are considered. The emphasis is on health related issues. The objective is to introduce the student to the large animal industry production practices. The care of the newborn and common disease prevention protocols is discussed.

## **Semester 4**

### **GN1443 Indigenous Culture and Awareness**

This general education course will provide students with an introduction to Canadian Indigenous Nations' history, sovereignty, land titles, cultural history and current critical issues. Topics addressed include the content of Indigenous rights, economic and social development, community and political processes, and business law and policies, justice & social services. Canadian Indigenous History and Relations is a general education course that has been incorporated into all programs at Northern College.

### **VT4000 Field Placement II**

Students will be expected to spend four weeks at the clinic where they have arranged placement. The clinic must be able to provide the necessary work experiences. It is expected that students will perform the duties regularly expected of a new graduate with the same experience level. This will give students the opportunity to experience clinic life, and then return to school to apply the newly gained knowledge and expertise to their schoolwork.

### **VT4005 Laboratory Procedures and Techniques IV**

This is the final course in the Laboratory Procedures and Techniques series. The disciplines of microbiology and mycology will be taught in this semester. Additional time will be allocated to develop student's proficiency in all areas of lab techniques. The final exam in this semester will include material from all four semesters.

### **VT4011 Kennel Duty IV**

This course will prepare the student to function in a veterinary environment. Students will provide care for the colony animals housed at Northern College. The use of Standard Operating Procedures will assist the student. The Veterinary Science facility simulates the professional environment and enables the students to learn the skills necessary to function as a productive team member.

### **VT4021 Registered Veterinary Technician Prep II**

The course prepares students to challenge their national professional examination and become registered veterinary technicians.

### **VT4033 Surgical Exercises II**

This course is a continuation of the practical training for veterinary technicians to become familiar with surgical procedures. Students practice their skills while participant in a surgical team. New procedures that were not previously covered in Surgical Exercises I are added. The class is divided into small working groups to allow an optimum supervisor to student ratio. Each team is responsible for taking a patient from pre-surgical examination and laboratory screening through to patient recovery and return to the owner. Routine veterinary procedures are practiced under anesthesia.

## **VT4042 Clinical Exercises IV**

This is the final course in the Clinical Exercises series. The students will be marked on their willingness to attempt the techniques practices in the course as well as the quality of their performance. Case studies will be introduced and each student will have the opportunity to participate in the investigative processes in an attempt to aid the veterinarian in finding a diagnosis.

## **VT4063 Pharmaceutical Principles II**

This course is a continuation of Pharmaceutical Principles I. Together these courses are designed to give veterinary technician students a fundamental understanding of general aspects of pharmacology, while covering in more detail specific classes of drugs that are important in veterinary medicine such as microbials, anesthetics and antiparasitics.

## **VT4113 Radiology III**

This course is a continuation of Radiology II. Each student will be assigned to a small group and this group will be expected to carry out the x-ray techniques as requested. Students will be marked on the quality of the x-ray film as well as their professional conduct.

## **VT4123 Dentistry II**

This course gives the student the opportunity to practice the skills needed to perform dentistry. The knowledge gained in Dentistry I will be put into practice. Students will be marked on their best knowledge of instruments, techniques, and their willingness to attempt the skills demonstrated by the professor.

## **VT4143 Clinical Studies IV**

This course is a continuation of the series of clinical studies courses which prepare students for work. The course deals with many aspects of small animal nursing care, ranging from the needs of neonatal patients requiring intensive care to the needs of senior patients with chronic conditions such as oncology patients. The course deals with nursing procedures; fluid therapy, blood transfusions, oxygen therapy, nutritional support of hospitalized patients, skin care and physiotherapy. The care and management of caged birds and exotic pets is also examined. There is a brief overview of advanced imaging technologies such as ultrasound and endoscopy.

## **VT4153 Wildlife and Exotics**

This course is designed to introduce students to the world of wildlife rehabilitation and exotic animal care. Students will experience some hands on care to compliment classroom theory.