

# VETERINARY TECHNICIAN

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## Program Outline

<b>Major:</b>	VETN
<b>Length:</b>	2 Years
<b>Delivery:</b>	4 Semesters
<b>Credential:</b>	Ontario College Diploma
<b>Effective:</b>	2016-2017
<b>Location:</b>	Orillia
<b>Start:</b>	Fall (Orillia)

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### Description

This program provides an opportunity for students to acquire the skills, knowledge and attitudes required to be an integral member of a veterinary health care team. Students will explore the range of activities carried out in companion and/or large animal practices, animal shelters, biomedical facilities, zoos or wildlife facilities. Through in-class theory and simulations, combined with actual clinical experience in local facilities, students learn to care for and handle animals, understand the basic principles of normal and abnormal life processes, and carry out routine laboratory and clinical procedures. Typical activities include obtaining and recording patient histories, collecting and/or processing specimens, preparing patients, instruments and equipment for surgery, assisting in medical and surgical procedures, providing specialized nursing care, taking and developing x-rays.

### Career Opportunities

Graduates will find a range of occupations as a member of the Veterinary Health Care Team, including employment in veterinary hospitals, clinics, zoos, animal shelters, pharmaceutical sales, diagnostic labs, kennels, grooming facilities, racetracks, livestock health management or food animal inspections.

### Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

- provide humane, ethical medical care for a variety of animal species, within the scope of the regulations, laws and statutes governing animals and the profession;
- develop an awareness of the scope of legislation governing the humane and appropriate use of animals in hospitals, shelters, research facilities, food production, and responsible ownership;
- understand the role of professional associations and memberships, regarding the advancement of the Veterinary Technician both professionally and personally;
- practice correct methods of treatment when handling, medicating, or nursing an animal under care, or while influencing care;
- practice professional standards while conducting an array of veterinary procedures independently or under the supervision of a veterinarian in a variety of medical or laboratory settings;
- establish and achieve appropriate standards for meeting the housing and nutritional needs of animals under care;
- restrain and manage companion animals in clinical situations;
- perform basic patient examinations and accurately document data on vital signs;
- collect and process samples for diagnostic laboratory work;
- perform common veterinary diagnostic tests such as blood chemistries, differentials, sensitivities, parasite load assays and EKGs;
- prepare pharmaceuticals as prescribed by a veterinarian;
- administer medications or treatments by common drug routes or application techniques;
- maintain and prepare anesthetic delivery systems for various species and agents;
- induce anesthesia, monitor patients under anesthesia, and document observations;
- prepare and maintain the surgical area ensuring adequate cleanliness or asepsis is achieved;
- assist during surgical procedures, maintaining aseptic techniques;
- perform dental prophylactic procedures on dogs and cats;
- take and produce standard diagnostic radiographs;
- use computer assistance to document and detail client, inventory, procedure or historical information for future reference;
- function effectively as a member of the multi-disciplinary Veterinary Health Care Team, by understanding and respecting the duties, responsibilities, obligations and limitations of each position;
- work independently to support the clinic/facility while respecting the range and limitations of activities permitted under current legislation governing auxiliary workers;
- establish and supervise the duties and activities commonly carried out by the Clinic Assistant, Receptionist, volunteers and other auxiliary staff as required;
- communicate for the purpose of educating, directing, leading and supporting clients, peers, clinicians and the public regarding the veterinary profession and the role of the technician;

- practice consistently high standards of professionalism while advising, instructing or informing clients and co-workers;
- advocate for the Veterinary Technician as a professional within a health care setting according to Association standards and bylaws;
- participate in lifelong learning activities to ensure currency and credibility in the industry;
- use computer-mediated opportunities to promote the Veterinary Technician locally and internationally;
- communicate clearly and effectively orally, in writing, or through electronic means;
- practice competent, responsible problem solving, decision-making and self-management skills that will enhance the working environment of all members of the Veterinary Health Care Team;
- use systematic, logical problem solving approaches to create appropriate, supportable solutions in a Veterinary Health Care setting;
- design, implement and follow up on projects within acceptable time frames, by using foresight and initiative;
- seek and generate alternatives for more efficient work activities and routines;
- contribute effectively to the Health Care Team by demonstrating awareness of the major duties and responsibilities of the members in order to maximize benefits to clients and patients and the facility;
- practice professionalism by presenting positive attitudes and actions at all times.

### **External Recognition:**

Georgian College is accredited by the Canadian Veterinary Medical Association and the Ontario Association of Veterinary Technicians. Georgian College graduates are eligible to write the Veterinary Technician National Exam and apply for Registered Veterinary Technician status in Ontario. Georgian College is accredited by the Canadian Council on Animal Care as a 'Good Animal Practice' facility. Georgian College is a charter member of the Ontario Association of Veterinary Technician Educators.

### **The Program Progression:**

Fall Intake - Orillia

Sem 1	Sem 2	Sem 3	Sem 4
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Fall 2016	Winter 2017	Fall 2017	Winter 2018

### **Articulation:**

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 co-ordinator for specific details if you are interested in pursuing such an option. Additional information can be found on our website at <http://www.georgiancollege.ca/admissions/credit-transfer/>

**Admission Requirements:**

OSSD or equivalent with

- Grade 12 English (C or U)
- Grade 12 Mathematics (C or U)
- Grade 11 or 12 Biology (C or U)
- Grade 11 or 12 Chemistry (C or U)

Mature students, non-secondary school applicants (19 years or older), and home school applicants may also be considered for admission. Eligibility may be met by applicants who have taken equivalent courses, upgrading, completed their GED, and equivalency testing. For complete details refer to: [www.georgiancollege.ca/admissions/policies-procedures/](http://www.georgiancollege.ca/admissions/policies-procedures/)

Applicants who have taken courses from a recognized and accredited post-secondary institution and/or have relevant life/learning experience may also be considered for admission; refer to the Credit Transfer Centre website for details: [www.georgiancollege.ca/admissions/credit-transfer/](http://www.georgiancollege.ca/admissions/credit-transfer/)

**Selection Process:**

Applicants are required to complete the Health Occupations Aptitude Examination as part of the selection process. This test measures reading comprehension, spelling, natural sciences and verbal/non-verbal reasoning. Scores from this test as well as academic grades are used to determine acceptance. Applicants will be assessed and ranked based on the results of their testing and their academic background.

**Additional Information:**

Proof of pre-exposure rabies vaccination in the form of a blood antibody titre is required at the student's expense before beginning the program. Consult your physician for details.

Practical Experience

Students benefit from experience in our on-campus veterinary hospital, as well as unpaid clinical placements in professional veterinary environments. This experience reinforces skills and theory learned during academic semesters, develops professional contacts, job knowledge and career paths, improves human relations and communication skills and promotes personal and professional maturity.

**Graduation Requirements:**

- 21 Mandatory Courses
- 2 Communications Courses
- 3 General Education Courses
- 2 Field Placements

**Graduation Eligibility:**

To graduate from this program, the passing weighted average for promotion through each semester, from year to year, and to graduate is 60%. Additionally, a student must attain a minimum of 50% or a letter grade of P (Pass) or S (Satisfactory) in each course in each semester unless otherwise stated on the course outline.

**Mandatory Courses**

- VETC1002 Veterinary Anatomy and Physiology 1
- VETC1003 Introduction to Veterinary Technology
- VETC1007 Veterinary Anatomy and Physiology 2
- VETC1009 Animal Husbandry and Handling
- VETC1013 Animal Nursing 1
- VETC1014 Veterinary Radiography 1
- VETC1016 Veterinary Pharmacology 1
- VETC1017 Veterinary Lab Techniques 1
- VETC1018 Veterinary Lab Techniques 2
- VETC2002 Animal Diseases
- VETC2003 Companion Animal Nutrition
- VETC2011 Animal Nursing 2
- VETC2012 Veterinary Anesthesia 1
- VETC2014 Veterinary Radiography 2
- VETC2015 Veterinary Anesthesia 2
- VETC2016 Veterinary Surgical Techniques 2
- VETC2017 Veterinary Dentistry
- VETC2018 Veterinary Surgical Techniques 1
- VETC2019 Veterinary Office Practices
- VETC2020 Pharmacology 2
- VETC2021 Alternatives to Companion Animals

**Communications Courses**

To be selected at time of registration from the College list, as determined by testing.

#### General Education Courses

To be selected from College list

#### Field Placements

VETC1019 Field Placement 1

VETC2022 Field Placement 2

#### **Course Descriptions:**

VETC1002 Veterinary Anatomy and Physiology 1 42.0 Hours

This course is a study of basic anatomy and physiology of companion animals. The physiological functions associated with major body systems will be studied as it applies to the healthy animal and homeostasis. The cat and dog will be the main species used to learn about the integumentary, musculo-skeletal, digestive, cardiovascular and urinary systems.

VETC1003 Introduction to Veterinary Technology 42.0 Hours

This course is an overview of the role of the professional Veterinary Technician. Students are introduced to a range of subjects integral to the success of the technician as a member of the Veterinary Health Care team. The scope of legislation, influences of regulatory or professional bodies, and factors that influence the profession are studied at municipal, provincial and national levels. The essential skills of mathematics, communication, veterinary medical terminology and professional deportment are reinforced.

VETC1007 Veterinary Anatomy and Physiology 2 42.0 Hours

This course is a continuation of Veterinary Anatomy and Physiology 1 with emphasis on the respiratory, digestive, urinary, reproductive, endocrine, nervous and reticuloendothelial systems of cats and dogs. A more in-depth study of the function of mammalian systems is conducted, and immunology and disease processes are introduced.

P- VETC1002 Veterinary Anatomy and Physiology 1 or P- VET6103 Veterinary Anatomy And Physiol

VETC1009 Animal Husbandry and Handling 70.0 Hours

This course is a combination of theory and practice as it pertains to the common care and management of companion animals. Students focus on the normal behaviors, health status indicators and husbandry needs of healthy dogs and cats. Students will identify breeds and breed characteristics of common domestic animals. Students will

learn appropriate handling and restraint techniques as related to the animal's life stage, behavior and health status. Restraint aids and species variation will be addressed.

C- VETC1002 Veterinary Anatomy and Physiology 1 or P- VET6103 Veterinary Anatomy And Physiol

#### VETC1013 Animal Nursing 1 84.0 Hours

Students learn and practice typical nursing duties carried out in a veterinary hospital. Emphasis is on monitoring and recognizing health status indicators of non-critical patients, sample collection, documentation of findings, interpretation and adherence to medical protocols in case management. Routine preventive health care procedures will be practiced, and correct bandaging techniques, administration of external medications, and client education are studied.

(P- VETC1009 Animal Husbandry and Handling or P- VETC1000 Replaced by VETC 1009 or P- VET6101 Animal Husbandry And Handling) and (C- VETC1007 Veterinary Anatomy and Physiology 2 or P- VET6106 Veterinary Anatomy And Physiol) and (P- VETC1010 Veterinary Lab Techniques 1 or P- VETC1017 Veterinary Lab Techniques 1) and (C- VETC1015 Lab Techniques 2 or C- VETC1018 Veterinary Lab Techniques 2 or P- VETC1012 replaced by VETC 1015 200720)

#### VETC1014 Veterinary Radiography 1 56.0 Hours

Students learn the fundamentals of radiography and the use of imaging as a diagnostic tool, focusing on the safety of humans and animals. The skills necessary to produce quality radiographs are studied and practiced, including use of personal protective devices, machine safety, correct use and maintenance of machines, animal positioning, exposure and developing of standard radiographs. Safe use and disposal of developing reagents are practiced.

C- VETC1007 Veterinary Anatomy and Physiology 2 or P- VET6106 Veterinary Anatomy And Physiol

#### VETC1016 Veterinary Pharmacology 1 28.0 Hours

In this course students begin their study of drugs and other substances of veterinary importance. Pharmacy skills including safe handling, storage, and disposal of drug products and calculation of drugs doses are studied. The necessity for accurate record and log keeping as legal requirements are reinforced. Characteristics, usage, measurement, dosage, administration and effects on patients of selected medications will be discussed.

P- VETC1002 Veterinary Anatomy and Physiology 1 and C- VETC1007 Veterinary Anatomy and Physiology 2

#### VETC1017 Veterinary Lab Techniques 1 70.0 Hours

This combination theory and laboratory course introduces students to standard veterinary laboratory procedures. Emphasis is on preparation and evaluation of microbiological, cytological, and fecal samples for in-house analysis or submission to an outside laboratory. Essentials of Microbiology and Parasitology will be discussed. Safe

handling and disposal of hazardous and biological materials will be demonstrated and practiced, complying with regulations by local, provincial and federal authorities.

C- VETC1002 Veterinary Anatomy and Physiology 1

VETC1018 Veterinary Lab Techniques 2 84.0 Hours

The emphasis in this course is to build on lab skills acquired in Veterinary Lab Techniques 1. Students will acquire samples from healthy animals and develop proficiency in completing standard medical diagnostic tests on blood, urine, feces, skin and other samples. Through a problem solving approach, students will conduct tests on samples that may display indications of disease process. Students will evaluate tests with regard to sample quality, diagnostic implications, quality control, limitations and client education.

(P- VETC1017 Veterinary Lab Techniques 1 or P- VETC1010 Veterinary Lab Techniques 1) and C- VETC1007 Veterinary Anatomy and Physiology 2

VETC1019 Field Placement 1 160.0 Hours

The student completes a placement in a Veterinary Health Care setting under the direct supervision of a Veterinary Technician (VT) or a Doctor of Veterinary Medicine (DVM). The student applies knowledge, skills and attitudes learned in lecture and laboratory classes to an external placement. Students gain experience while completing a set of advanced competencies, set out by Georgian College in accordance with program course work, under the supervision of a VT or DVM.

C- VETC1013 Animal Nursing 1 and C- VETC1014 Veterinary Radiography 1 and C- VETC1016 Veterinary Pharmacology 1 and C- VETC1018 Veterinary Lab Techniques 2 and C- VETC2019 Veterinary Office Practices

VETC2002 Animal Diseases 42.0 Hours

The emphasis of this course is the disease process and the implications of disease on companion animal care and treatment. Students will learn ways in which tissues, organs and organ systems respond to injury, processes of tissues healing, and effects of pathogens on tissues. Factors that predispose to disease, immune responses and disease transmission are studied. Overviews of common pathological condition in companion animals are discussed.

P- VETC1007 Veterinary Anatomy and Physiology 2 and C- VETC2011 Animal Nursing 2 and C- VETC2020 Pharmacology 2

VETC2003 Companion Animal Nutrition 28.0 Hours

This course introduces students to basic and advance key nutritional concepts. Emphasis is on the individual nutritional requirements of common companion animal species in maintaining a healthy balanced diet for all life stages. Requisite nutrients and their subsequent composition in diets are studied in detail. Current pet food production and marketing techniques that may influence the choice of diet, and how this may affect the advisory role of the Veterinary Technician will be discussed. Specific diets intended for



use in improving diagnosed pathologies will be introduced, and their mechanism of action and efficacy analyzed.

P- VETC1007 Veterinary Anatomy and Physiology 2 and P- VETC2002 Animal Diseases

#### VETC2011 Animal Nursing 2 70.0 Hours

The emphasis of this course is on the nursing functions associated with animals that are exhibiting signs of disease, distress, or injury. First Aid and emergency care are studied and compared with typical nursing techniques related to medical and surgical case management. Sampling techniques and treatments appropriate to managing disease and post-operative care are practiced in an applied setting.

P- VETC1013 Animal Nursing 1 and (P- VETC1015 Lab Techniques 2 or P- VETC1018 Veterinary Lab Techniques 2) and P- VETC1016 Veterinary Pharmacology 1 and C- VETC2002 Animal Diseases and C- VETC2020 Pharmacology 2

#### VETC2012 Veterinary Anesthesia 1 56.0 Hours

This course will focus on the concept of anesthesia as an induced physiological state. Knowledge acquired from other courses is integrated to enable students to safely administer anesthetic agents and monitor veterinary patients under anesthesia. Patients will be evaluated from initial assessment through induction, monitoring and recovery. Accurate record keeping and documentation will be practiced. The safe use, care and maintenance of anesthetic induction equipment and ancillary monitoring equipment will be introduced.

P- VETC1007 Veterinary Anatomy and Physiology 2 and P- VETC1016 Veterinary Pharmacology 1 and C- VETC2011 Animal Nursing 2 and C- VETC2020 Pharmacology 2

#### VETC2014 Veterinary Radiography 2 42.0 Hours

Veterinary radiography is a critical diagnostic tool in the animal health field. The trained veterinary technician is responsible for understanding and applying the principles and skills of producing a quality diagnostic radiograph. Radiography 2 builds on the foundational knowledge of Radiography 1, and introduces the concepts of advanced techniques such as contrast studies and positioning. Exotic, avian and large animal techniques will also be discussed and demonstrated when possible. Other common imaging techniques used in veterinary medicine will also be discussed.

(P- VETC1011 replaced by VETC 1014 200720 or P- VETC1014 Veterinary Radiography 1 or P- VETC1005 Replaced by VETC 1011 or P- VET6109 Radiography 1) and C- VETC2011 Animal Nursing 2 and C- VETC2012 Veterinary Anesthesia 1

#### VETC2015 Veterinary Anesthesia 2 84.0 Hours

Veterinary Anesthesia 2 will focus on applying the skills introduced in Anesthesia 1, and expanding on them to consider anesthesia in emergency situations and alternative induction techniques. Patient monitoring and documentation skills will be strengthened with students inducing and monitoring anesthesia for a variety of purposes. Variations due to life stage and species differences will be examined. The safe use, care and

maintenance of anaesthetic induction equipment and ancillary monitoring equipment are reinforced.

(P- VETC2011 Animal Nursing 2 or P- VETC2000 Replaced by VETC 2011 or P- VET6206 Animal Nursing 2) and (P- VETC2012 Veterinary Anesthesia 1 or P- VETC2001 Replaced by VETC 2012 or P- VET6205 Veterinary Anesthesia 1) and (C- VETC2016 Veterinary Surgical Techniques 2 or P- VETC2008 Replaced by VETC 2016 or P- VET6207 Vet Surgical Techniques 2)

#### VETC2016 Veterinary Surgical Techniques 2 84.0 Hours

This course will focus on the Veterinary Technician's role in surgery. Students will work in teams to carry out the variety of duties associated with veterinary surgery. Emphasis is on sterile procedures and maintenance of operating room sterility, including the correct placement of resources and equipment. Knowledge of routine, typical companion animal surgeries and appropriate patient aftercare for client education are studied. The present state of legislation with regard to the procedures a technician may perform are examined.

(P- VETC2018 Veterinary Surgical Techniques 1 or P- VETC2013 replaced by VETC 2018 200710 or P- VETC2004 Replaced by VETC 2013 or P- VET6202 Vet Surgical Techniques 1) and (P- VETC2012 Veterinary Anesthesia 1 or P- VETC2001 Replaced by VETC 2012 or P- VET6205 Veterinary Anesthesia 1) and (C- VETC2015 Veterinary Anesthesia 2 or C- VETC2006 Replaced by VETC 2015 or C- VET6209 Veterinary Anesthesia 2)

#### VETC2017 Veterinary Dentistry 70.0 Hours

This detailed and comprehensive course will integrate knowledge to enable students to provide routine dental care for cats and dogs. Concepts include safety and legal issues, an in-depth study of the oral cavity and its associated structures, and identification and treatment of disease processes. Technical proficiency in the safe use, care and maintenance of dental equipment, use of imaging technology and client education will permit the skilled Veterinary Technician to carry out complete dental prophylaxis on multiple species.

(P- VETC1007 Veterinary Anatomy and Physiology 2 or P- VET6106 Veterinary Anatomy And Physiol) and (P- VETC2014 Veterinary Radiography 2 or P- VETC2005 Replaced by VETC 2014 or P- VET6201 Radiology 2) and (C- VETC2015 Veterinary Anesthesia 2 or C- VETC2006 Replaced by VETC 2015 or C- VET6209 Veterinary Anesthesia 2)

#### VETC2018 Veterinary Surgical Techniques 1 56.0 Hours

Students will learn the principles of asepsis, sterilization methods and practical applications of aseptic technique associated with typical companion animal surgery. Emphasis will be on routine maintenance of the surgical area, preparation of the surgical packs, instruments and equipment and physical preparation of the patient for surgery. Preparation of the operating room personnel including anticipating and identifying contamination of the sterile zone, animal positioning, surgical instrument and suture material preparation are studied. Pre and post-operative patient care and client education are practiced.

P- VETC1017 Veterinary Lab Techniques 1 or P- VETC1010 Veterinary Lab Techniques 1  
or P- VETC1001 Replaced by VETC 1010

**VETC2019 Veterinary Office Practices 28.0 Hours**

This course focuses on the technician's role in a veterinary practice: to provide leadership, demonstrate professionalism, practice ethical behaviour and communicate with associates in the industry. Students learn to provide client education on life stage behaviour, nutrition, disease process and prevention, bereavement support and referral, seasonal health issues and pre and postoperative care. The professional technician will understand billing procedures, use industry standard computer applications and will be able to explain charges and services to clients.

P- VETC1003 Introduction to Veterinary Technology and C- VETC1013 Animal Nursing 1

**VETC2020 Pharmacology 2 28.0 Hours**

In this course students continue their study of drugs and other substances of veterinary importance. Characteristics, usage, measurement, dosage, administration and effects on patients of selected medications will be discussed.

P- VETC1007 Veterinary Anatomy and Physiology 2 and P- VETC1016 Veterinary Pharmacology 1 and C- VETC2002 Animal Diseases and C- VETC2012 Veterinary Anesthesia 1

**VETC2021 Alternatives to Companion Animals 70.0 Hours**

In this course, students explore aspects of veterinary technology associated with species not typically identified as companion animals. Concepts discussed include large animal or mixed practice responsibilities, specialty practices and research environments. Common handling and restraint techniques, sample collection, diseases and treatment of performance, exotic and laboratory animals will be studied.

P- VETC1007 Veterinary Anatomy and Physiology 2 and P- VETC2011 Animal Nursing 2

**VETC2022 Field Placement 2 160.0 Hours**

The student completes a placement in a Veterinary Health Care setting under the direct supervision of a Veterinary Technician (VT) or a Doctor of Veterinary Medicine (DVM). The student applies knowledge, skills and attitudes learned in lecture and laboratory classes to an external placement. Students gain experience while completing a set of advanced competencies, set out by Georgian College in accordance with program course work, under the supervision of a VT or DVM.

C- VETC2003 Companion Animal Nutrition and C- VETC2015 Veterinary Anesthesia 2 and C- VETC2016 Veterinary Surgical Techniques 2 and C- VETC2017 Veterinary Dentistry and C- VETC2021 Alternatives to Companion Animals

**Course Description Legend**

P = Prerequisite; C = Concurrent prerequisite; CO= Corequisite

*Information contained in College documents respecting programs is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs. The college reserves the right to add or delete programs, options, courses, timetables or campus locations subject to sufficient enrolment, and the availability of courses.*