

# VETERINARY TECHNOLOGY (VT)

## VT-1120 Introduction to Veterinary Technology 2 Credits

Introduction to the profession of veterinary technology. Includes terminology with emphasis on word components, spelling, pronunciation, word analysis, common colloquialisms and abbreviations. Introduction to legal, moral, ethical status of animals in modern society. Discussion of profession, its legal ramifications and career paths open to graduate veterinary technicians. Introduction to common breeds and types of domestic animal species and related medical issues. Introduction to animal euthanasia and veterinary technician's role in that procedure. Introduction to medical math. Introduction to the metric system and how to convert units of measure amongst commonly used medical math systems.

*Lecture: 2 hours*

*Prerequisite(s): ENG-0995 Applied College Literacies, or appropriate score on English Placement Test to be eligible to enroll in ENG-1010 College Composition I.*

## VT-1325 Veterinary Office Applications 2 Credits

Overview of veterinary technician's role in office procedures, workflow, automated veterinary office processing, record-keeping, and computer hardware and software. Special emphasis on veterinary technician's role in these processes. Learn the basics of the metric system and conversion between units of measure commonly used in medical math systems.

*Lecture: 1 hour. Laboratory: 2 hours*

*Prerequisite(s): Departmental approval.*

## VT-1401 Veterinary Science I 4 Credits

Recognition of physical and behavioral characteristics of commonly encountered dog and cat breeds. Introduction to basic companion animal and laboratory animal behavior, husbandry and nutrition. Laboratory focuses on non-invasive clinical management techniques including physical examination, grooming and other in-office procedures as well as minor invasive procedures such as injections and venipuncture.

*Lecture: 3 hours. Laboratory: 2 hours*

*Prerequisite(s): Departmental approval: admission to program.*

## VT-1410 Veterinary Science II 3 Credits

Fundamentals of physical and behavioral characteristics of horses, cattle, sheep, goats, pigs, poultry and camelids. Introduces basic husbandry and nutrition for these species. Laboratory focuses on restraint, handling and performance of common veterinary procedures used as part of large animal management and/or treatment of common clinical conditions. Field trips required for laboratory portion of course.

*Lecture: 2.5 hours. Laboratory: 1 hour*

*Prerequisite(s): VT-1401 Veterinary Science I, BIO-1420 Anatomy and Physiology of Domestic Animals II, or concurrent enrollment.*

## VT-1521 Veterinary Pathology I 2 Credits

Study of identification techniques, nomenclature, life cycles, epidemiology and control of internal and external parasites of small animals, horses and ruminants.

*Lecture: 1 hour. Laboratory: 3 hours*

*Prerequisite(s): BIO-1410 Anatomy and Physiology of Domestic Animals I or concurrent enrollment; and departmental approval: admission to program.*

## VT-1530 Veterinary Pathology II 2 Credits

Study and application of microbiologic techniques commonly performed in veterinary practices. Includes survey of microorganisms and associated disease conditions relevant to veterinary medicine and procedures to collect, culture and identify these microorganisms.

*Lecture: 1 hour. Laboratory: 3 hours*

*Prerequisite(s): VT-1521 Veterinary Pathology I.*

## VT-1600 Veterinary Surgical Nursing and Assisting 3 Credits

Fundamentals of routine veterinary surgery including instrumentation, patient preparation, aseptic technique, fluid therapy, wound healing, specialized procedures, and general nursing care. Fundamentals of electrocardiography including operation of electrocardiograph, origin of the ECG tracing and recognition of common cardiac arrhythmias.

*Lecture: 1 hour. Laboratory: 6 hours*

*Prerequisite(s): VT-1401 Veterinary Science I, and BIO-1420 Anatomy and Physiology of Domestic Animals II or concurrent enrollment.*

## VT-1700 Veterinary Diagnostic Imaging 3 Credits

Introduction to radiography, ultrasonography, CT, MRI, and nuclear scintigraphy imaging modalities. Preparation, use and maintenance of radiography and ultrasonography equipment. Acquisition and processing of digital and analog diagnostic images.

*Lecture: 2 hours. Laboratory: 3 hours*

*Prerequisite(s): VT-1401 Veterinary Science I; and BIO-1420 Anatomy and Physiology of Domestic Animals II or concurrent enrollment.*

## VT-2200 Dentistry for Veterinary Technicians 1 Credit

Fundamentals of veterinary dentistry. Students learn how to perform oral cavity assessments, routine dental cleaning, dental charting, and client education, and assist with advanced dental procedures.

*Lecture: 1 hour*

*Prerequisite(s): VT-1600 Veterinary Surgical Nursing and Assisting, and BIO-1420 Anatomy and Physiology of Domestic Animals II.*

## VT-2300 Pharmacology for Veterinary Technicians 2 Credits

Introduction to veterinary pharmacology including common drug terminology, classifications and usages of drugs, dosage calculations, methods of drug administration, side effects and contraindications.

*Lecture: 2 hours*

*Prerequisite(s): VT-1401 Veterinary Science I, and BIO-1420 Anatomy and Physiology of Domestic Animals II or concurrent enrollment, and VT-1120 Introduction to Veterinary Technology.*

**VT-2402 Veterinary Pathology III**

**2 Credits**

Veterinary hematology and chemistry laboratory procedures including complete blood counts (CBC) and clinical chemistries performed commonly in veterinary practices.

*Lecture: 1 hour. Laboratory: 3 hours*

*Prerequisite(s): BIO-1420 Anatomy and Physiology of Domestic Animals II, and VT-1521 Veterinary Pathology I.*

**VT-2412 Veterinary Pathology IV**

**2 Credits**

Veterinary medical laboratory procedures performed commonly in veterinary practices including urinalysis, vaginal cytology, ear cytology, cytology of tissues and fluids, bone marrow evaluation, serology, coagulation tests and necropsy.

*Lecture: 1 hour. Laboratory: 3 hours*

*Prerequisite(s): VT-2402 Veterinary Pathology III.*

**VT-2520 Animal Health and Disease**

**3 Credits**

Physiological systems approach to the most frequently encountered diseases and clinical problems of companion animals, horses and production animals, including disease names, definition and history, animals at risk, causes and signs, diagnosis, treatment and prevention.

*Lecture: 3 hours*

*Prerequisite(s): VT-2300 Pharmacology for Veterinary Technicians, and departmental approval: admission to the program.*

**VT-2610 Veterinary Anesthesia, Analgesia, & Dental Techniques**

**3 Credits**

Fundamentals of veterinary anesthesia and analgesia. Students learn how to induce, maintain, and monitor anesthesia, administer and assess response to analgesics, and perform routine veterinary dental cleaning procedures.

*Lecture: 2 hours. Laboratory: 3 hours*

*Prerequisite(s): VT-1600 Veterinary Surgical Nursing and Assisting, VT-2300 Pharmacology for Veterinary Technicians, and VT-2200 Dentistry for Veterinary Technicians.*

**VT-2650 Veterinary Emergency and Critical Care**

**1 Credit**

Fundamentals of veterinary emergency and critical care, including client communication, triage, and first aid; patient transport and emergency techniques; life support measures, care of recumbent or otherwise compromised patients; wound care and nursing considerations; and CPR and CPR. Also integrated review of fluid therapy and patient monitoring techniques.

*Lecture: 1 hour*

*Prerequisite(s): VT-2610 Veterinary Anesthesia, Analgesia, and Dental Techniques.*

**VT-2700 Avian and Exotic Animal Medicine**

**2 Credits**

Introduction to avian and exotic animal husbandry, physical examination, clinical procedures and common clinical conditions. Field trips may be included.

*Lecture: 2 hours*

*Prerequisite(s): VT-2610 Veterinary Anesthesia, Analgesia, and Dental Techniques, and VT-2412 Veterinary Pathology IV.*

**VT-2820 Independent Advanced Study/Research in Veterinary Technology**

**1-3 Credits**

Directed individual advanced study. Study/research title and specific content arranged between instructor and student. May be repeated for a maximum of six credits of different topics.

*Lecture: 1-3 hours*

*Prerequisite(s): Departmental approval, and instructor approval, and ENG-0995 Applied College Literacies, or appropriate score on English Placement Test. Note: ENG-0990 Language Fundamentals II taken prior to Fall 2021 will also meet prerequisite requirements.*

**VT-2851 Veterinary Practicum and Seminar I**

**1 Credit**

Includes practicum and on-campus seminar. In practicum, students observe and assist with common procedures in clinical settings. Clinical settings include small animal practice, animal population control facility, laboratory animal facility, equine practice, food animal practice/facility and exotic animal practice/facility. In seminar, students discuss individual clinical situations occurring during practicum experience, and study technicians role in euthanasia of an animal including methodology, mental preparation and understanding of the grieving owner.

*Lecture: .5 hours*

*Other Required Hours: Practicum: 3.5 hrs/week. Seminar: .5 hour per week.*

*Prerequisite(s): VT-1410 Veterinary Science II.*

**VT-2860 Veterinary Practicum and Seminar II**

**2 Credits**

Includes practicum and on-campus seminar. In practicum, students observe and assist with common procedures in clinical settings. Clinical settings include small animal practice, animal population control facility, laboratory animal facility, equine practice, food animal practice/facility, and exotic animal practice/facility. In seminar, students discuss individual clinical situations occurring during the veterinary practicum experience, study the technician's role in pediatrics and first aid, and prepare to search for employment.

*Lecture: 1 hour*

*Other Required Hours: Practicum: 7 hours per week. Seminar: 1 hour per week.*

*Prerequisite(s): VT-2851 Veterinary Practicum and Seminar I.*

**VT-2940 Veterinary Field Experience**

**2 Credits**

Capstone course in Veterinary Technology. Clinical experience involving practice of techniques commonly used in veterinary medicine. Students assigned to two different types of veterinary facilities. Site options may include small animal practices, animal emergency clinics, referral practices, equine practices, mixed practices, food animal practices, laboratory animal facilities and the Cleveland Metroparks Zoo.

*Other Required Hours: Field experience: 24 hrs/week.*

*Prerequisite(s): VT-2860 Veterinary Practicum and Seminar II, and VT-2610 Veterinary Anesthesia, Analgesia, & Dental Techniques.*