



Curriculum Outline: Veterinary Technician AST

<i>Course</i>	<i>#</i>	<i>Course Name</i>	<i>Credits</i>
Term 1 Courses			
VET	100	Introduction to Veterinary Technology	1
MATH	120	Technical Mathematics	3
VET	130	Animal Biology/Veterinary Anatomy & Physiology 1	4
VET	120	Veterinary Practice Management	1
VET	170	Veterinary Nursing Techniques	6
Term 2 Courses			
VET	101	Veterinary Terminology	1
ENG	105	English Composition	3
CHEM	102	Fundamentals of Chemistry	3
VET	201	Veterinary Nutrition	1
VET	151	Veterinary Clinical Pathology I	3
VET	131	Veterinary Anatomy & Physiology II	4
Term 3 Courses			
VET	124	Veterinary Pharmacology	3
VET	200	Large Animal Medicine	3
Term 4 Courses			
BIO	240	Microbiology	3
VET	152	Veterinary Clinical Pathology II	3
VET	110	Animal Medicine	3
VET	150	Veterinary Parasitology	4
VET	160	Veterinary Radiology	2
Term 5 Courses			
VET	140	Laboratory Animal/Avian/Exotic	4
PSYCH	101	General Psychology	3
VET	220	Emergency Small Animal	1
VET	211	Surgical Nursing/Dentistry	3
VET	210	Veterinary Anesthesia	3
Term 6 Courses			
VET	250	VTNE Preparation Course	2
VET	260	Veterinary Tech Externship	7
		Graduation Requirement	74



Course Descriptions

VET 100

Introduction to Veterinary Technology: (3 credits) This course will provide an orientation to the field of veterinary medicine and its professions. Emphasis is placed on veterinary medical terminology, breed identification of the canine and feline, different career paths in veterinary medicine and occupational hazards.

MATH 120

Technical Math (3 Credits) This course is a comprehensive treatment of the algebra of real and complex functions and their application to problems in all branches of science and technology. The course develops necessary skills to manipulate relations and model phenomenon according to the Algebra of the Real and Complex number systems. As new functions are introduced graphical and algebraic methods are used to develop mathematical models and methods of solution covering a variety of applications in the sciences.

VET 120

Veterinary Practice Management: (1 credit) This course provides an overview into the field of Veterinary Office Management.

VET 130

Animal Biology/Veterinary Anatomy & Physiology I: (4 credits) An introduction to basic concepts in biology through study of the major lineages of invertebrate and vertebrate animals, with emphasis on the ontogeny, structure, and function of organ systems in an evolutionary context. Topics covered will include basic cell structure and function, development, systematics, and evolution. The laboratory will focus on observation of structural-functional relationships of living and preserved representatives of the major animal phyla. The course examines veterinary terminology and small animal anatomy & physiology. Body systems covered include the sensory, integumentary, skeletal, muscular, respiratory, circulatory, and immune systems.

VET 170

Veterinary Nursing Techniques: (6 credits) This course uses both knowledge-based learning and a laboratory setting to understand topics specific to the nursing care of animals in the clinical setting. The laboratory will provide experience in implementation of the topics covered in lecture.

VET 101

Veterinary Terminology: (1 credit) This course will provide an orientation to commonly used veterinary medical terminology and abbreviations.

ENG 105

English Composition: (3 credits) This English composition course is designed to increase your sensitivity to language and increase your awareness to the various forms of writing – narrative, persuasive, research, casual analysis, etc. Through various readings, you will learn to critically read and analyze texts, offering your insights in class discussions. You will work independently and in group settings as a means to develop writing and communications skills. In addition, you will learn to view your writing objectively, integrating logical approaches to your writing, and understanding and identifying the role of audience and reader as related to your writing. You will learn the tools of the writing process, involving brainstorming, outlining, writing, proofreading and editing multiple drafts to a final draft.

CHEM 102

Fundamentals of Chemistry: (3 credits) Chemistry is a dynamic and rapidly changing field. This course is primarily designed to prepare students who wish to pursue a science major requiring a comprehensive course in general chemistry. The course has four major goals: to provide a clear, consistent methodology that promotes quantitative problem-solving skills, student engagement through everyday matters related to chemistry, to provide understanding of problem areas, and to ensure understanding of chemistry concepts.

VET 201

Veterinary Nutrition: (1 credit) This course will provide an overview of small animal nutrition. It will begin with an introduction to the basic concepts of nutrition including defining the types of nutrients, the concept of energy, and specific nutrient requirements. We will then discuss the basics of feeding healthy dogs and cats of various life stages. Lastly, we will expand into a detailed discussion of the clinical application of nutrition in small animal practice including the role of nutrition in the management of common diseases, the use of nutritional supplements, and a discussion of common toxins and the principles of managing toxicities in practice.

VET 151 & 152

Veterinary Clinical Pathology: (2, 3-credit courses) These courses use both knowledge based learning and a laboratory setting to understand topics and skills specific to microbiology, hematology, cytological and urinalysis. The skills learned in this course are vital to optimal patient diagnosis and outcome.

VET 131

Veterinary Anatomy & Physiology II: (4 credits) The course builds upon the basic knowledge of animal body systems and introduces common disorders.

VET 124

Veterinary Pharmacology: (3 credits) The course uses both knowledge-based learning and a laboratory setting to understand and demonstrate proper procedures for identifying, administering, calculating, storing and labeling veterinary pharmaceuticals. Procedures for safety and maintaining proper documentation will also be covered.

VET 200

Large Animal Medicine: (3 credits) This course prepares the student to work with large animals. The student will learn the importance of a thorough physical examination and medical record for large animals. Common diseases and conditions found in equine and food animal species along with how to provide proper hospitalized care will be learned.

BIO 240

Microbiology: (3 credits) This course includes basic concepts about microbes and their effect on our world and more specifically humans. Concepts of general pathology and immunology are also included.

VET 110

Animal Medicine: (3 credits) This course will focus on different body systems and the diseases that affect them. This course will include diseases affecting the respiratory, cardiovascular, hepatobiliary, gastrointestinal, urinary, reproductive, and endocrine systems as well as hemotologic and immunologic diseases. Epidemiology, etiology, pathophysiology, clinical presentation, clinical pathology (serology and urinalysis), nursing interventions, and client education topics will be addressed during the discussion of each disease.

VET 150

Veterinary Parasitology: (4 credits) This course uses a theory setting to gain knowledge in suggested parasite treatments and procedures for controlling parasite infections and a laboratory setting to demonstrate proper procedures for skills used in identifying parasites.

VET 160

Veterinary Radiology: (2 credits) This course uses both knowledge-based learning and a lab setting to understand and demonstrate proper procedures for radiation safety, radiology technique, imaging techniques, and appropriate restraint for imaging.

VET 140

Laboratory Animal/Avian/Exotic: (4 credits) Through laboratory experience and practice students will learn the basics in exam procedures, and laboratory procedures. Students will run a simulated veterinary lab to obtain necessary skills for a veterinary assistant. (2 credits) This course uses knowledge based learning to understand the basics in care of birds, reptiles and small mammals. Behavior, diagnostics, nutrition, husbandry, and zoonoses are covered.

PSYCH 101

General Psychology: (3 credits) This course introduces psychology as a basic and applied science. Students will investigate the scope of the field and explore the physiological, psychological, social, and cognitive influences on behavior.

VET 220

Emergency Small Animal: (1 credit) This course examines the diseases and disorders seen in small animal practice on an emergency basis. Emphasis will be placed on diseases and disorders where triage, critical thinking, communication, and nursing skills are crucial to the animal's outcome.

VET 211

Surgical Nursing/Dentistry: (4 credits) This course uses both knowledge-based learning and lab setting to understand topics and skills specific to the use of dentistry and surgical nursing. This course will provide study in surgical assisting, operative care and dentistry. Emphasis is placed on assisting in surgical procedures and cleaning, polishing, dental x-rays, and charting of teeth.

VET 210

Veterinary Anesthesia: (3 credits) This course uses both knowledge-based learning and lab setting to understand topics and skills specific to the use of anesthesia. It provides study in anesthesiology and emphasis is placed on administering and monitoring anesthesia.

VET 250

VTNE Preparation: (2 credits) The Veterinary Tech National Examination is administered by the American Association of Veterinary State Boards. Pennsylvania requires a passing score on the VTNE as one necessary criterion to receive credentialing as a Certified Veterinary Technician. The VTNE is a computer-based exam that is given during month-long windows three times per year. There are 170 (150 scored) questions on the exam, and test-takers are given three hours to complete it. This course is designed to provide the skills and to review the knowledge required to obtain a passing score on the VTNE.

VET 260

Veterinary Tech Externship: (7 credits) The course represents the culminating activity for the Veterinary Technician program. Students will participate in an externship located at an animal hospital, veterinary clinic, or other approved animal care facility per AVMA specifications. These AVMA criteria require that the student's supervisor is either a Doctor of Veterinary Medicine (DVM), or a Credentialed Veterinary Technician/Certified Veterinary Technician (CVT). In addition, the location must meet all facility requirements with regard to equipment and standards within the veterinary medical profession.