



Veterinary Medical Technology
Credential: Associate in Applied Science Degree
in Veterinary Medical Technology
A45780

This curriculum prepares individuals to assist veterinarians in preparing animals, equipment and medications for examination and surgery; collecting specimens; performing laboratory, radiographic, anesthetic and dental procedures; assisting in surgery; and providing proper husbandry of animals and their environment.

Course work includes instruction in veterinary anatomy, nutrition, parasitology, pathology, physiology, radiology, terminology, zoology, office practices, laboratory techniques, dentistry, and small and large animal clinical practices. Students also take courses in English, humanities, psychology, mathematics, chemistry and computer technology. Graduates are eligible to take state and national examinations administered by the North Carolina Veterinary Medical Board. Graduates may be employed in veterinary clinics; diagnostic, research or pharmaceutical laboratories; zoos; veterinary schools; or other areas associated with animal care.

Program Specific Entrance Standards:

1. A grade of “C” or better in high school or college biology.
2. Each applicant is required to attend an informational session and tour of the VMT facilities conducted by an admissions counselor and/or VMT faculty. A signed agreement indicating willingness to comply with all VMT specific policies is required of each student prior to entering the VMT program.
3. Upon acceptance, each student is required to submit a student medical form (provided by the College) from his/her physician documenting good health and current vaccination against common childhood diseases and tetanus. In addition, rabies pre-immunization is strongly recommended.
4. Satisfactory Placement Test Scores are required. (All test scores must be less than five years old or the student must have earned a “C” or better in the corresponding developmental courses.) See the Veterinary Medical Technology Guidelines for current required placement scores.
5. Applicants who have attended any college (including CCCC) within the past 5 years must have an overall GPA of 2.0 or better and a most recent semester GPA of 2.0 or better. (Exceptions may be made due to extenuating circumstances.)

Program Specific Academic Standards:

1. VMT students who do not receive a grade of C or better in courses with a prefix of VET will not be allowed to continue in the program and must apply for readmission the next year (space available).
2. Students are not allowed to enter the VMT curriculum more than twice (i.e., only one readmission into the VMT program is allowed.)

Program Length: 6 semesters
 Career Pathway Options: Associate in Applied Science in Veterinary Medical Technology
 Program Sites: Lee Campus - Day Program

Course Requirements for Veterinary Medical Technology Degree

A. General Education Courses (16 SHC)		C-L-SHC
ENG 111	Expository Writing	3-0-3
ENG 111A	Expository Writing Lab	0-2-1
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
MAT 110	Mathematical Measurement	2-2-3
	Social/Behavioral Science Elective	3-0-3

B. Required Major Core Courses (50 SHC)

COE 112	Co-op Work Experience I	0-20-2
VET 110	Animal Breeds and Husbandry	2-2-3
VET 120	Veterinary Anatomy and Physiology	3-3-4
VET 121	Veterinary Medical Terminology	3-0-3
VET 123	Veterinary Parasitology	2-3-3
VET 125	Veterinary Diseases I	1-3-2
VET 126	Veterinary Diseases II	1-3-2
VET 131	Veterinary Lab Techniques I	2-3-3
VET 133	Veterinary Clinical Practices I	2-3-3
VET 137	Veterinary Office Practices	1-2-2
VET 211	Veterinary Lab Techniques II	2-3-3
VET 212	Veterinary Lab Techniques III	2-3-3
VET 213	Veterinary Clinical Practices II	1-9-4
VET 214	Veterinary Clinical Practices III	1-9-4
VET 215	Veterinary Pharmacology	3-0-3
VET 217	Large Animal Clinical Practices	2-3-3
VET 237	Animal Nutrition	3-0-3

C. Other Major Hours Required for Graduation (9 SHC)

CHM 130	General Organic and Biochemistry	3-0-3
CHM 130A	General Organic and Biochemistry Lab	0-2-1
CIS 111	Basic PC Literacy	1-2-2
OST 131	Keyboarding	1-2-2
VET 114	Introduction to Veterinary Med Tech.	1-0-1

Total Semester Hours Credit Required for Graduation: 75

Semester Curriculum for Veterinary Medical Technology Degree

1st Semester (Fall)		C-L-SHC
MAT 110	Mathematical Measurement	2-2-3
OST 131	Keyboarding	1-2-2
VET 110	Animal Breeds and Husbandry	2-2-3
VET 114	Introduction to Veterinary Med Tech.	1-0-1
VET 120	Veterinary Anatomy and Physiology	3-3-4
VET 121	Veterinary Medical Terminology	<u>3-0-3</u>
		12-9-16
2nd Semester (Spring)		
CHM 130	General Organic and Biochemistry	3-0-3
CHM 130A	General Organic and Biochemistry Lab	0-2-1
ENG 111	Expository Writing	3-0-3
ENG 111A	Expository Writing Lab	0-2-1
	Social/Behavioral Science Elective	3-0-3
VET 123	Veterinary Parasitology	2-3-3
VET 125	Veterinary Diseases I	<u>2-0-2</u>
		13-7-16
3rd Semester (Summer)		
CIS 111	Basic PC Literacy	1-2-2
VET 131	Veterinary Lab Techniques I	2-3-3
VET 133	Veterinary Clinical Practices I	<u>2-3-3</u>
		5-8-8
4th Semester (Fall)		
ENG 114	Professional Research and Reporting	3-0-3
	Humanities/Fine Arts Elective	3-0-3
VET 126	Veterinary Diseases II	1-3-2
VET 211	Veterinary Lab Techniques II	2-3-3

VET 213	Veterinary Clinical Practices II	1-9-4
VET 215	Veterinary Pharmacology	<u>3-0-3</u>
		13-15-18

5th Semester (Spring)

VET 137	Veterinary Office Practices	1-2-2
VET 212	Veterinary Lab Techniques III	2-3-3
VET 214	Veterinary Clinical Practices III	1-9-4
VET 217	Large Animal Clinical Practices	2-3-3
VET 237	Animal Nutrition	<u>3-0-3</u>
		9-17-15

6th Semester (Summer)

COE 112	Co-op Work Experience I	0-20-2
---------	-------------------------	--------

Total Semester Hours Credit: 75

COURSE DESCRIPTIONS

CHM 130 General, Organic and Biochemistry 3-0-3
Corequisites: CHM 130A

This course provides a survey of basic facts and principles of general, organic, and biochemistry. Topics include measurement, molecular structure, nuclear chemistry, solutions, acid-base chemistry, gas laws, and the structure, properties, and reactions of major organic and biological groups. Upon completion, students should be able to demonstrate an understanding of fundamental chemical concepts. *This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.*

CHM 130A General, Organic and Biochemistry Lab 0-2-1
Corequisites: CHM 130

This course is a laboratory for CHM 130. Emphasis is placed on laboratory experiences that enhance materials presented in CHM 130. Upon completion, students should be able to utilize basic laboratory procedures and apply them to chemical principles presented in CHM 130. Also included are EMR, spectrophotometry, extraction, safety and feed analysis. This course has been approved to satisfy the comprehensive articulation agreement pre-major and/or elective course requirement.

CIS 111 Basic PC Literacy 1-2-2

This course provides an overview of computer concepts. Emphasis is placed on the use of personal computers and software applications for personal and fundamental workplace use. Upon completion, students should be able to demonstrate basic personal computer skills.

COE 112 Co-op Work Experience I 0-20-2

Prerequisite: Approval of Instructor or Department Chairperson
 This course provides work experience with a college approved employer in an area related to the student's program of study. Emphasis is placed on integrating classroom learning with related work experience. Upon completion, students should be able to evaluate career selection, demonstrate employability skills, and satisfactorily perform work-related competencies.

ENG 111 Expository Writing 3-0-3

Prerequisites: RED 090 and ENG 090 or appropriate placement test scores

Corequisites: ENG 111A

This course is the required first course in a series of two designed to develop the ability to produce clear expository prose. Emphasis is placed on the writing process including audience analysis, topic selection, thesis support and development, editing, and revision. Upon completion, students should be able to produce unified, coherent, well-developed essays using standard written English. *This*

course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.

ENG 111A Expository Writing Lab 0-2-1

Prerequisites: RED 090 and ENG 090 or appropriate placement test scores

Corequisites: ENG 111

This writing laboratory is designed to apply the skills introduced in ENG 111. Emphasis is placed on the editing and revision components of the writing process. Upon completion, students should be able to apply those skills in the production of final drafts in ENG 111. The computer is used as a writing and design tool for this course.

ENG 114 Prof. Research and Reporting 3-0-3

Prerequisites: ENG 111

This course, the second in a series of two, is designed to teach professional communication skills. Emphasis is placed on research, listening, critical reading and thinking, analysis, interpretation, and design used in oral and written presentations. Upon completion, students should be able to work individually and collaboratively to produce well-designed business and professional written and oral presentations. The computer is used as a writing and design tool for this course. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in English composition.*

MAT 110 Mathematical Measurement 2-2-3

Prerequisites: MAT 070, MAT 080, MAT 120, MAT 121, MAT 161, MAT 171, or MAT 175 or appropriate placement test scores

This course provides an activity-based approach to utilizing, interpreting, and communicating data in a variety of measurement systems. Topics include accuracy, precision, conversion, and estimation within metric, apothecary, and avoirdupois systems; ratio and proportion; measures of central tendency and dispersion; and charting of data. Upon completion, students should be able to apply proper techniques to gathering, recording, manipulating, analyzing, and communicating data.

OST 131 Keyboarding 1-2-2

This course covers basic keyboarding skills. Emphasis is placed on the touch system, correct techniques, and development of speed and accuracy. Upon completion, students should be able to key at an acceptable speed and accuracy level using the touch system.

VET 110 Animal Breeds and Husbandry 2-2-3

Prerequisites: Enrollment in Veterinary Medical Technology program
 This course provides a study of the individual breed characteristics and management techniques of the canine, feline, equine, bovine, porcine, ovine, caprine, and laboratory animals. Topics include physiological data, animal health management, and basic care and handling of animals. Upon completion, students should be able to identify breeds of domestic and laboratory animals, list physiological data, and outline basic care, handling, and management techniques.

VET 114 Introduction to Vet Med Tech 1-0-1

Prerequisites: Enrollment in Veterinary Medical Technology program
 This course introduces the standard operating procedures and responsibilities of veterinary medical technology departments, common zoonotic diseases, safety and ethical issues, and USDA/DEA/OSHA regulations/compliance. Emphasis is placed on standard operating procedures, zoonotic diseases, safety and ethical issues, and the importance of USDA/DEA/OSHA regulations and compliance. Upon completion, students should be able to perform duties assigned in veterinary medical technology, recognize potential

zoonotic diseases, and establish safety protocols/regulatory compliance.

VET 120 Vet Anatomy and Physiology 3-3-4
Prerequisites: Enrollment in the Veterinary Medical Technology program

This course covers the structure and function of the animal body with emphasis on the similarities and differences among domestic animals. Emphasis is placed on the structure and function of the major physiological systems of domestic, laboratory, and zoo animals. Upon completion, students should be able to identify relevant anatomical structure and describe basic physiological processes for the major body systems.

VET 121 Vet Medical Terminology 3-0-3
Corequisites: Enrollment in Veterinary Medical Technology program

This course covers the basic medical terminology required for veterinary technicians. Topics include the pronunciation, spelling, and definition of word parts and vocabulary terms unique to the anatomy, clinical pathology, and treatment of animals. Upon completion students should be able to demonstrate knowledge and understanding of basic medical terms as they relate to veterinary medicine.

VET 123 Veterinary Parasitology 2-3-3
Prerequisites: VET 120

This course covers the common internal and external parasites of companion animals, livestock, selected zoo animals, and wild animals. Emphasis is placed on laboratory diagnosis of the most common forms of the parasite through fecal, urine, skin, and blood exams. Upon completion, students should be able to identify common parasites and discuss life-cycles, treatment and prevention strategies, and public health aspects of veterinary parasitology.

VET 125 Veterinary Diseases I 2-0-2
Prerequisites: VET 120

This course introduces basic immunology, fundamentals of disease processes including inflammation, and common infectious diseases of animals and their prevention through immunization. Topics include fundamental disease processes, principles of medical therapy, immunologic processes, infections and zoonotic diseases of domestic animals, and prevention of disease. Upon completion, students should be able to describe basic disease and immunological processes, recognize infections and zoonotic diseases, and discuss prevention strategies.

VET 126 Veterinary Diseases II 1-3-2
Prerequisites: VET 125

This course is a continuation of VET 125 and includes the study of basic disease processes and fundamentals of pathology. Topics include histopathology, pathologic changes associated with common diseases of animals, necropsy procedures, and specimen handling. Upon completion, students should be able to describe basic pathologic changes associated with disease, recognize histopathologic changes, and properly perform collection and submission of necropsy specimens.

VET 131 Vet Lab Techniques I 2-3-3
Prerequisites: VET 120, VET 123
Corequisites: VET 133

This course includes the fundamental study of hematology, hemostasis, and urinalysis. Emphasis is placed on basic hematology and urinalysis techniques, manual skill development, instrumentation, quality control, and applications to veterinary science. Upon completion, students should be able to perform manual and

automated CBCs, hemostatic assays, and complete urinalyses and maintain laboratory equipment and quality control.

VET 133 VET Clinical Practice I 2-3-3
Prerequisites: VET 120, VET 123
Corequisites: VET 131

This course introduces basic practices and techniques of the veterinary clinic and biomedical research fields for dogs, cats, and laboratory animals. Topics include physical exam, husbandry, housing, sanitation, restraint and handling, administration of medications, anesthesia and euthanasia techniques, grooming, and dentistry. Upon completion, students should be able to properly restrain, medicate, examine, groom, and maintain each of the species studied.

VET 137 Vet Office Practices 1-2-2
Prerequisites: VET 131, VET 133, Enrollment in Veterinary Medical Technology program

This course is designed to teach basic administrative techniques, client communication skills, and regulations pertaining to veterinary medicine. Topics include record keeping, telephone techniques, professional liability, office procedures, state and national regulatory laws, human relations, and animal welfare. Upon completion, students should be able to demonstrate effective communication techniques, office procedures, and knowledge of regulatory laws and issues relating to animal welfare.

VET 211 Vet Lab Techniques II 2-3-3
Prerequisites: VET 131
Corequisites: VET 213

This course covers advanced hematology, serology, immunology, and clinical chemistry. Topics include advanced hematologic, serologic, and immunologic test procedures: manual and automated clinical chemistry procedures: laboratory safety: and quality control. Upon completion, students should be able to collect, prepare, and analyze serum and plasma samples and outline quality control and safety procedures.

VET 212 Vet Lab Techniques III 2-3-3
Prerequisites: VET 211
Corequisites: VET 214

This course introduces the basic principles of microbiology, histology, and cytology. Emphasis is placed on collection of microbiological samples for culture and sensitivity and collection and preparation of samples for histological and cytological examination. Upon completion, students should be able to perform microbiological culture and sensitivity and evaluate cytology and histology specimens.

VET 213 VET Clinical Practice II 1-9-4
Prerequisites: VET 133
Corequisites: VET 211

This course covers basic radiography, anesthesia techniques, dentistry, sample collection and handling, surgical assistance and instrumentation, sterile techniques, and patient record keeping. Topics include basic radiography, injectable and gas anesthesia, dentistry, instrument identification and care, sterile surgical technique, specimen collection and processing, and maintenance of patient records. Upon completion, students should be able to take and process radiographs, administer and monitor anesthesia, assist in surgical procedures, collect specimens, and maintain surgical records.

VET 214 VET Clinical Practice III 1-9-4
Prerequisites: VET 213
Corequisites: VET 212

