

# Veterinary Biomedical Technology Courses

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## **VETT 1111 - Veterinary Clinical Externship I**

Hours: 3

This course consists of a supervised clinical experience in a work place. The primary objective is to reinforce and expand upon concepts learned by participating in actual cases and familiarization with and appreciation for the role of the Veterinary Nurse in a practical, applied atmosphere. The student is to achieve competency in skills and decision-making abilities commensurate with the Committee on Veterinary Technician Education and Activities (CVTEA) requirements. NOTE: 160 clinical hours (~ 4 weeks) during the summer will be completed over the duration of this course. Prerequisites: Successful completion of the first year in the professional Veterinary Biomedical Technology Program.

## **VETT 2111 - Veterinary Clinical Externship II**

Hours: 3

This course consists of a supervised clinical experience in a work place. The primary objective is to reinforce and expand upon concepts learned by participating in actual cases and familiarization with and appreciation for the role of the Veterinary Nurse in a practical, applied atmosphere. The student is to achieve competency in skills and decision-making abilities commensurate with the Committee on Veterinary Technician Education and Activities (CVTEA) requirements. NOTE: 240 clinical hours (~ 6 weeks) during the summer will be completed over the duration of this course. Prerequisites: Successful completion of the second year of the professional Veterinary Biomedical Technology program.

## **VETT 3111 - Veterinary Clinical Externship III**

Hours: 5

This course consists of a supervised clinical experience in a work place. The primary objective is to reinforce and expand upon concepts learned by participating in actual cases and familiarization with and appreciation for the role of the Veterinary Nurse in a practical, applied atmosphere. The student is to achieve competency in skills and decision-making abilities commensurate with the Committee on Veterinary Technician Education and Activities (CVTEA) requirements. NOTE: 300 clinical hours during the final semester will be completed over the duration of this course, but may be started over the winter break. Students will have Thursday and Fridays off in their final semester to allow of externship hours. Prerequisites: Current enrollment in the final semester of the professional Veterinary Biomedical Technology program.

## **VETT 100 - Introduction to the Profession of Veterinary Medicine**

Hours: 3

This course is designed to give students an overview of veterinary medicine from its origin to the present time. The course will include, but not be limited to: professionalism, legal and ethical aspects of veterinary practice, regulatory and government bodies, safety, sanitation and waste-disposal protocols, the human-animal bond, animal welfare, animal abuse, breeds of companion animals, professional associations, credentialing, roles of the veterinary team members, and careers. Note: this course is required for entrance into the professional Veterinary Biomedical Technology program.

## **VETT 101 - Veterinary Medical Terminology**

Hours: 1

Veterinary medical terminology explored through a systematic study of word parts. This courses focuses on fundamental recognition, interpretation and medical terms used in effective clinical communication.

## **VETT 140 - Veterinary Office Skills and Procedures**

Hours: 1

This course is designed to cover the support skills needed in a veterinary office which are critical to the success or failure of a practice. This course will include, but not be limited to: telephone etiquette, client-based financial transactions, ethical and legal procedures, bookkeeping functions, scheduling, records and logs management, medical records, and inventory. Students will be introduced to one or more industry-standard veterinary software programs as well as word processing and spreadsheet software. Prerequisites: VETT 100 with a minimum grade of C or concurrent enrollment.

## **VETT 220 - Humane Treatment and Handling of Animals**

Hours: 2

This course is designed to focus upon animal welfare and humane treatment during handling and restraint. Topics will include, but not be limited to: physical examination, behavior, husbandry, safety, equipment choice, and basic clinical procedures of all domestic species. NOTE: Handling of animals will include domestic small and large species with required participation. Prerequisites: Current enrollment in the professional Veterinary Biomedical Technology program.

## **VETT 250 - Veterinary Professional Communications**

Hours: 3

This course is designed to cover professional communications that may be encountered in a veterinary practice. This course will include, but not be limited to: basic communication skills, psychology of client relations, client communication, leadership, social media, time and stress management, receptionist duties and dealing with difficult clients, malpractice, human-animal bond, euthanasia, death and dying, career goals, resume writing, and interviews.

**VETT 297 - Veterinary Special Topics**

Hours: 0-4

Organized class. May be repeated when topics vary.

**VETT 300 - Clinical Veterinary Nutrition**

Hours: 3

This course is designed to introduce students to applied animal nutrition. The course covers basic nutrition for both ruminant and simple-stomach animals. This course will include, but not be limited to: the basic elements of nutrition including the major categories of nutrients, and their sources, digestion, and metabolism, interpretation of pet food labels, homemade, raw, and commercial diets as well as therapeutic/critical care nutrition for dogs and cats. Both large and small animal feeds and feeding will be covered with companion animal nutrition as the focus. Common nutritional diseases and calculating the amount of food to feed dogs and cats during various stages of the life cycle will also be covered.

**VETT 305 - Veterinary Anatomy and Physiology I**

Hours: 3

This is the first of a two-course sequence examining the structure and function of comparative vertebrate animal body systems important in health and disease. Terminology and nomenclature of the veterinary field will be emphasized. A systems approach to prepare students to locate and recognize clinically significant anatomical features. In conjunction with classroom instruction, the anatomy and physiology lab component for this course requires students to apply knowledge from the classroom to hands-on and critical-thinking application exercises. Corequisites: VETT 306.

**VETT 306 - Veterinary Anatomy and Physiology I Dissection Lab**

Hours: 1

Laboratory systematic study of the gross anatomy of domestic animals commonly seen in veterinary practice. NOTE: Dissection of animal cadavers will be required of all students.

**VETT 307 - Veterinary Anatomy and Physiology II**

Hours: 3

This is the second of a two-course sequence examining the structure and function of comparative vertebrate animal body systems important in health and disease. Terminology and nomenclature of the veterinary field will be emphasized. A systems approach to prepare students to locate and recognize clinically significant anatomical features. In conjunction with classroom instruction, the anatomy and physiology lab component for this course requires students to apply knowledge from the classroom to hands-on and critical-thinking application exercises. Prerequisites: VETT 100, VETT 101, ANS 1319 and VETT 305 and VETT 306. Corequisites: VETT 308 VETT A&P Lab II.

**VETT 308 - Veterinary Anatomy and Physiology II Dissection Lab**

Hours: 1

Laboratory systematic study of the gross anatomy of domestic animals commonly seen in veterinary practice. NOTE: Dissection of animal cadavers will be required of all students. Prerequisites: VETT 100, VETT 101, ANS 1319, VETT 305 and VETT 306. Corequisites: VETT 307 Veterinary A&P II.

**VETT 310 - Veterinary Pharmacology**

Hours: 3

This course familiarizes students with the fundamental knowledge and pharmaceutical principles of veterinary related drugs. This course will include, but not be limited to: nomenclature, pharmacokinetics, pharmacodynamics, mechanisms of action, the applications to each body system, indications, contraindications, methods of administration, drug schedules and controlled substances. Emphasis is placed on the role the Veterinary Nurse plays in educating the client in the use of prescribed drugs in pets and production animals. The legal and ethical factors involved in handling pharmaceuticals are also considered. Prerequisites: Current enrollment in the second year of the professional Veterinary Biomedical Technology program. Corequisites: VETT 311.

**VETT 311 - Veterinary Pharmaceutical Calculations**

Hours: 1

This course is designed to present the broad spectrum of information commonly referred to as posology, which is defined as the study of dose and dosage in the field of applied pharmacology. This course will include, but not be limited to: elementary algebra, general mathematics used by veterinary medical personnel involved in calculating dosages on common drugs, reading drug orders and labels, intravenous flow rates, and systems of measure, drug orders, and dose calculations to other calculations. The goal of this course is that each student be confident and capable of calculating correct drug doses regardless of the physical form of the medication. This course requires a strong background in algebra, the metric system, and an understanding of word problems. Prerequisites: Current enrollment in the second year of the professional Veterinary Biomedical Technology program. Corequisites: VETT 310.

**VETT 325 - Veterinary Parasitology and Entomology**

Hours: 3

This course introduces students to basic laboratory procedures and veterinary parasitology. This course will include, but not be limited to: basics of parasitism, life cycles, pathogenesis, identification, and control of common internal (nematodes, tapeworms, flukes, and protozoa) and external (insects, mites, lice, fleas and ticks) parasites of veterinary and zoonotic importance in domestic animals. Prerequisites: ANS 1319, VETT 100, VETT 101, BSC 1406, non veterinary biomedical technology students are not required to take corresponding VETT 326 Lab. Students enrolled in the professional Veterinary Biomedical Technology program MUST enroll in the corresponding lab. Corequisites: VETT 326 Veterinary Parasitology and Entomology.

**VETT 326 - Veterinary Parasitology and Entomology Laboratory**

Hours: 1

Hands-on laboratory course regarding the study of parasitology principles and procedures commonly utilized in veterinary medicine. This course is also an introduction to laboratory procedures and will include microscope care and use, sample collection, basic diagnostic analysis of fecal and other specimens and identification of parasites. NOTE: This is the laboratory component of VETN 325 and must be taken in conjunction with it for all veterinary nursing students but is not required for non vet nursing majors. Prerequisites: ANS 1319, VETT 100, VETT 101, BSC 1406. Corequisites: VETT 325.

**VETT 330 - Diagnostic Imaging for Veterinary Technicians**

Hours: 3

Three semester hours (2 lec / 2 lab) This hands on course is designed as an introduction to radiology and other types of imaging in a veterinary facility. This course will include, but not be limited to: radiation properties, x-ray production, radiographic equipment, darkroom procedures, the radiographic image, animal positioning and radiation safety. The use of ultrasound will be demonstrated and alternative technologies for imaging such as fluoroscopy, CT, MRI and nuclear scintigraphy will be discussed. In the laboratory portion of this course, students will be required to position patients, calculate exposure values, expose radiographic film and process it. Students will examine radiographs taken by their lab groups and critique them for their diagnostic quality. Prerequisites: Current enrollment in the professional Veterinary Biomedical Technology program.

**VETT 340 - Veterinary Clinical Pathology I**

Hours: 3

An introduction to Veterinary Clinical Pathology as it relates to normal and abnormal physiology of animal species. This course deals with the examination of blood, urine, exudates, and cells for diagnostic and prognostic purposes in veterinary practice. Topics include, but not be limited to: proper collection and preparation of biological samples, analysis of urine, blood, blood chemistry and cytological samples and necropsy procedure with sample collection. Prerequisites: ANS 1319, VETT 100, VETT 101, BSC 1406, CHEM 1305 or CHEM 1311, VETT 307 and VETT 308. Corequisites: VETT 341.

**VETT 341 - Veterinary Clinical Pathology I Laboratory**

Hours: 1

Hands-on laboratory course regarding the study of hematology, urine analysis, cytology and serum chemistry principles and diagnostic procedures commonly utilized in veterinary medicine. This is the laboratory component of VETT 340 and must be taken in conjunction with it. Prerequisites: ANS 1319, VETT 100, VETT 101, BSC 1406, CHEM 1305 or CHEM 1311, VETT 307 and VETT 308. Corequisites: VETT 340.

**VETT 342 - Veterinary Clinical Pathology II**

Hours: 2

This course will review content as it relates to normal and abnormal physiology of animal species. This course deals with the examination of blood, urine, exudates, and cells for diagnostic and prognostic purposes in veterinary practice. Topics include, but not be limited to: proper collection and preparation of biological samples, blood, and cytological samples and necropsy procedure and sample collection Prerequisites: Current enrollment in the professional Veterinary Biomedical Technology program.

**VETT 345 - Small Animal Clinical Nursing Techniques**

Hours: 2

This laboratory class is designed to be an introduction to nursing concepts and specific skills necessary for small animals. Students learn how to properly restrain cats and dogs, administer parenteral injections, take a patient history, complete medical records, conduct a physical examination, and perform clinical procedures related to primary patient care. Topics include, but not be limited to: including wound care and bandaging, diagnostic procedures for the ears and eyes, parenteral injection techniques, and administering medications. Prerequisites: Current enrollment in the second year of the professional Veterinary Biomedical Technology program.

**VETT 350 - Large Animal Clinical Nursing Techniques**

Hours: 2

Presents common large animal nursing skills. The course focuses on basic species knowledge, husbandry, physical examination, restraint, equipment and handling safety. The laboratory develops skills in bovine, equine, caprine, ovine handling and will include, but not be limited to: hoof trimming, vaccinations, dehorning, and castration methods, venipuncture, IV catheter placement, administering fluids and medications, bandaging and splinting techniques and neonatal care. Laboratory sessions will provide a hands-on teaching experience with common large animal species. Prerequisites: Current enrollment in second year of the professional Veterinary Biomedical Technology program.

**VETT 397 - Veterinary Special Topics**

Hours: 0-4

Organized class. May be repeated when topics vary.

**VETT 400 - Veterinary Surgical Nursing**

Hours: 2

This course focuses on the Veterinary Technician' role in surgery. Topics include, but are not limited to: instruments, surgical support equipment, aseptic technique and proficiency in the proper preparation of the operating room. Skills such as intravenous catheter placement, proper endotracheal intubation, patient and surgical site preparation, and surgical pack preparation will be covered in this course as well as VETT 412 Lab. Prerequisites: Current enrollment in the third year of the professional Veterinary Biomedical Technology program. Corequisites: VETT 410, VETT 411, VETT 412.

**VETT 410 - Veterinary Anesthesiology**

Hours: 3

This lecture course presents basics of anesthesiology. The student will learn specific anesthetic agents and pharmaceuticals used in veterinary medicine, appropriate clinical indications, their proper dosages, side effects, and routes of administration. Other topics include but are not limited to: the principles of patient evaluation, induction and maintenance, anesthesia monitoring, care of the patient in and around the anesthetic period and control of post-surgical pain as well as client education for postoperative care. Hands on experience and skills will be developed in VETT 412 Laboratory. Prerequisites: Current enrollment in the third year of the professional Veterinary Biomedical Technology program.

**VETT 411 - VETERINARY DENTISTRY: PRINCIPLES AND PRACTICES**

Hours: 2

This course will focus on dental anatomy, common dental diseases, and basic dental procedures. Topics will include, but not limited to: oral anatomy, terminology, instrumentation, proper charting, routine periodontal care common dental diseases, dental prophylaxis and oral radiography. Emphasis is on the role of the Veterinary Technician in a small animal practice in providing dental services and client education on home dental care. Hands on experience and skills will be developed in laboratory. Prerequisites: Current enrollment in the third year of the professional Veterinary Biomedical Technology program.

**VETT 412 - Anesthesia, Dentistry & Surgical Nursing Skills Laboratory I**

Hours: 2

This is a laboratory class and emphasizes practical aspects of the surgical nursing, dentistry and anesthesia courses. Skills will include but not be limited to: aseptic technique, surgical instrumentation, preparation for surgical procedures, intravenous catheter placement, endotracheal intubation, patient monitoring, dental prophylaxis, oral charting and radiographic techniques. NOTE: Live animals are used in this course. Students are required to provide all pre and post care of patients used in labs and may be required to be at school after hours and/or on weekends. Prerequisites: Current enrollment in the third year of the professional Veterinary Biomedical Technology program. Corequisites: VETT 400, VETT 410, VETT 411.

**VETT 413 - Anesthesia, Dentistry & Surgical Nursing Skills Laboratory II**

Hours: 2

Continuation of skills and concepts from 412. Prerequisites: VETT 400, 410, 411 & 412 and current enrollment in the third year of the professional Veterinary Biomedical Technology program.

**VETT 430 - Emergency & Critical Care for Veterinary Technicians**

Hours: 3

Three semester hours (2 lec / 2 lab) This course provides an introduction to current emergency & critical care procedures for both large and small animals. A systematic approach will be taken in examining the physiology, treatment and care of emergency and critical care cases seen in practice. Physical findings, appropriate diagnostic testing, initial treatment, appropriate monitoring and follow-up are emphasized. Laboratories will include emergency simulations, clinical cases and critical thinking skills. Prerequisites: Current enrollment in the second year of the professional Veterinary Biomedical Technology program.

**VETT 451 - Veterinary Disease Management**

Hours: 3

This course includes a general study of the more common and important diseases of small and large animals, their etiology, pathogenesis, clinical signs, typical lesions, diagnosis, prevention and treatment. Prerequisites: VETT 100, VETT 101, VETT 307, VETT 308. Corequisites: VETT 100, VETT 101, VETT 307, VETT 308.

**VETT 460 - Lab Animal and Exotics Disease & Management**

Hours: 2

Introduction to the husbandry, handling, restraint, care and use of exotics and laboratory animals. Includes discussion in common diseases, biosecurity, and public health. The care and use of laboratory animals will be covered in depth. Prerequisites: Current enrollment in the third year of the professional Veterinary Biomedical Technology program.

**VETT 470 - Veterinary Nursing Senior Seminar - A Case Based Approach**

Hours: 1

This course is designed to provide students in the Veterinary Biomedical Technology Program with a culminating experience to discuss and reflect on concepts that have been learned throughout the program of study. The students will also have the opportunity to present current topics and issues that are relevant to the veterinary profession and animal industry. Case-based presentations emphasize the basic pathophysiology of disease and clinical investigation and demonstrate the interactions between the clinical and basic sciences. Prerequisites: VETT 410, VETT 411, VETT 412, VETT 450 & VETT 455, senior standing, current enrollment in the final semester of the professional Veterinary Biomedical Technology program.

**VETT 471 - VTNE Preparation**

Hours: 1

This course prepares students for the Veterinary Technician National Exam (VTNE). Topics include test-taking strategies, formation of a study plan, and a review of topics from previous veterinary technology courses. Students enrolled in this course will develop essential test-taking skills by completing practice exams covering all major topics. Prerequisites: VETT 410, VETT 411, VETT 412, VETT 450 & VETT 455, senior standing, current enrollment in the final semester of the professional Veterinary Biomedical Technology program.

**VETT 472 - Clinical Competency Final Evaluation**

Hours: 1

Evaluates the students' clinical skills and knowledge after successful completion of all courses in the major, in order to prepare them for the national board examination and clinical practice. Evaluation of clinical skills and knowledge includes selected clinical laboratory techniques (parasitology, hematology, urinalysis, cytology, chemistry, serology, microbiology); diagnostic imaging; office procedures; surgical preparation, instrumentation and assistance; anesthesia induction, maintenance and monitoring; restraint and handling techniques; small, large and laboratory animal diagnostic and therapeutic techniques; and pharmacology calculations, labeling and drug classification. Prerequisites: VETT 410, VETT 411, VETT 412, VETT 450 & VETT 455, senior standing, current enrollment in the final semester of the professional Veterinary Biomedical Technology program.

**VETT 497 - Veterinary Special Topics**

Hours: 0-4

Organized class. May be repeated when topics vary.

**VETT 498 - Global Survey of Agriculture and Veterinary Medicine**

Hours: 0-4

This course is a study abroad opportunity for students to experience the animal industry in another country. Veterinary colleges, farms and other agricultural industries will be toured and students will participate in hands on learning experiences. Emphasis will be placed on learning about different cultures and how new knowledge can be applied to students lives and professions. NOTE: locations will rotate yearly. Prerequisites: ANS 1319.