VETERINARY TECHNOLOGY (SYSTEMS) (VTS)

VTS 1262 LABORATORY ANIMAL INTERNSHIP
Description: This 4 week internship provides job experience in the laboratory animal medicine field at an approved work location. Internship may be done during school breaks that are of at least one week in length. Internship locations, agreements and objectives must be approved by the Division. Students will show progress toward completion of objectives through weekly reports and evaluations. Students are encouraged to carry their own medical, disability, and liability insurance. (Pre req: Lab Animal Med II)
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: FL

VTS 1301 MEDICAL TERMINOLOGY
Description: Medical Terminology introduces the student to basic words and word structure that are essential in reading and writing medical literature. This course is essential for anyone seeking a better understanding of veterinary medical and scientific terms.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

VTS 1313 MATH FOR VET TECHS
Description: This course is specifically designed to prepare students for the mathematics used on a daily basis in veterinary nursing as well on national certification board exams. It includes concepts needed for computations in chemistry and veterinary clinical practice classes. Major subject areas and exercises address conversions within a measurement system and between measurement systems. Computations taught in this course focus on single and multiple step dosage problems and the diluting of stock solutions to desired concentrations.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 1404 ANATOMY & PHYSIOLOGY
Description: Basic body systems are studied at the tissue, organ and system levels. Comparison of various species of common domestic animals is stressed. Laboratory exercises include a study of the skeletal system and dissection of a typical mammal. This course is a prerequisite for many other Veterinary Technology courses.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC

VTS 1511 LARGE ANIMAL TECHNIQUES I
Description: A course that deals with animal handling, current issues facing the livestock industry, production trends, terminology, animal growth, structure and selection, breeds, and development.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

VTS 1513 ANIMAL CARE
Description: This survey course introduces the student to canine and feline husbandry, behavior, species and breed identification, and the human-animal bond. Humane animal care and management is emphasized. The care, handling, nutritional needs basic nursing skills, normal values, and administration techniques, basic grooming and obtaining objective patient data. Effective and appropriate restraint techniques are stressed. Student must be able to lift and carry 50 lbs. to take this class. This is a lecture and lab class. A 70% or above in this class is required to take Nursing I.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 1521 LARGE ANIMAL TECHNIQUES II
Prerequisites: ASI 1011 Intro to Animal Science - a grade of 70% or higher
Description: Specific animal physiology of large and small farm animals is studied. The course includes an introduction to nursing procedures required in veterinary practice for farm animals. Safe and effective methods of controlling various kinds of animals are discussed and practiced in a combination lecture and hands-on laboratory format. Equine, bovine, caprine, poultry, and porcine are covered, as well as other species.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

VTS 1542 FACILITY MANAGEMENT
Prerequisites: 80 observation hours in a veterinary clinic
Description: Pre req: 20 observation hours in a veterinary clinic. Students study the management of animal holding facilities and the implementation of accepted animal welfare practices. Each student will participate in weekly kennel rotations providing the opportunity to care for the wide variety of animals involved in the veterinary technology program. This class includes daily and weekend care for the animals. As a prerequisite for Nursing II it must be passed with a C (70%) or above.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LAB

VTS 1603 INTRODUCTION TO LABORATORY SCIENCE
Description: Through the application of fundamental biology, students will survey the biological world in association with production animals and human health. Topics include parasitology, hematology, bacteriology, virology and an overview of laboratory procedures. The goal of this course is to provide students with an introduction to the world of microbes as a foundation for an integrated approach to understanding and managing for optimal, as well as economic, animal health decisions.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
VTS 1713 PHARMACY-ANESTHESIA  
**Description:** Pre req: A 70% (C) or higher in VTS 1313 Math for Vet Techs. This course includes the study of pharmacokinetics, pharmacodynamics, dosage calculations, and a survey of the common drug types used in veterinary practice. Adverse drug reactions are discussed.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

VTS 1822 RADIOLOGY I  
**Description:** (Pre req: 18 years of age, and a 70% or above in Anatomy) The student is presented with an overview of radiation safety, the generation of x-rays, machine operation and maintenance, patient positioning, radio-graphic film exposure, film developing, CI imaging, care of darkroom equipment, evaluation of x-ray quality, and correction in techniques for producing a film the veterinarian can use for diagnostic purposes. The laboratory portion is spent applying radiation safety principles and positioning of animals for radiography using various x-ray machines, film developing and computerized imaging storage techniques. A grade of 70% or higher in Radiology I is required to take Radiology II.  
**Credit Hours:** 2  
**Max credits per semester:** 2  
**Max credits per degree:** 2  
**Format:** LEC

VTS 2241 CAREER STRATEGIES  
**Description:** This course provides preparation for future employment. Students will develop a cover letter and resume, review OSHA standards, and learn about types of performance reviews common in the work place. Goal setting skills will be sharpened by developing objectives and a way to accomplish them as well as a measure for recognizing success in each area chosen. Students will develop job seeking skills as they locate an internship site.  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** LEC

VTS 2243 VETERINARY TECHNOLOGY INTERNSHIP  
**Description:** (Pre req: Completion of or enrolled in Career Strategies and a CGPA of 2.0 or higher) The internship is for a period of 8 weeks. Internship may be done during school breaks that are of at least one week in length or upon completion of all course work. Internship locations and agreements must be approved. For the Veterinary Technician internship must be done with a supervising veterinarian or veterinary technician designated by the veterinarian. Agreements may include more than one site. Official agreements are entered into between the student, the employer, and the college. Students identify learning objectives, design a methodology to accomplish them during the internship and must show substantial progress toward completion of these goals through weekly reports, pictures and evaluations. Students are encouraged to carry their own medical, disability, and liability insurance.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** FLD

VTS 2331 CLINICAL PRACTICES  
**Description:** Pre req: Parasitology, Radiology I or Radiation Safety Short Course and Nursing I. This class provides practical experience and preparation for working in a veterinary clinic setting. The students will be working in the Dr. Walter Long Veterinary Technician Teaching Clinic where basic technician based services are offered to the clinic clientele consisting of NCTA student, faculty and staff owned animals. As a field experience, students work for a minimum of 64 hours during the semester.  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** LAB

VTS 2533 LARGE ANIMAL TECHNIQUES III  
**Description:** (Pre req: Production Animals with a grade of 70% (C) or above) This course includes nursing procedures, radiology, and surgery for production animals and equine. Safe and effective methods of controlling various kinds of livestock are discussed and practiced in a combination of lecture and hands-on laboratory format. Equine, bovine, ovine, caprine, procine and poultry as well as other species may be covered.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

VTS 2551 LARGE ANIMAL CLINICAL ROTATION  
**Description:** (Pre req: grade of "C" or better in Large Animal Techniques) Students will have several extended days (32+ hours) of experiential learning opportunities with various large animal clinics/operations in the area, where they will assist in physical exams, vaccinations, pregnancy checks, necropsies, surgeries, and other large animal procedures (as available).  
**Credit Hours:** 1  
**Max credits per semester:** 1  
**Max credits per degree:** 1  
**Format:** FLD

VTS 2563 FUR AND FEATHER  
**Description:** This course is an introduction to the care of the smaller furred, feathered, and scaled animals that veterinary technicians may encounter in clinical practice. Species identification, housing requirements, dietary needs, reproduction, and potential health problems will be discussed. Emphasis will be placed on birds, rodents, small mammals, and reptiles housed at NCTA. This class includes a lecture and lab component.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC

VTS 2583 NURSING I  
**Description:** Pre req: A 70% (C) or higher in VTS 1313 Math for Vet Techs and VTS 1513 Animal Care. Basic animal nursing skills that are vital to the veterinary technician career are introduced. A large variety of skills are studied and practiced. This class includes a lecture and lab component. This class must be passed with a 70% (C) or higher to take Nursing II.  
**Credit Hours:** 3  
**Max credits per semester:** 3  
**Max credits per degree:** 3  
**Format:** LEC
VTS 2593 NURSING II
Description: This course is a continuation of Nursing I. Advanced animal nursing skills are studied and practiced. This class includes a lecture and laboratory component. This class is a pre req for Surgery Prep. (Pre req: Facility Mgt. and Nursing I)
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 2652 PARASITOLOGY
Description: Students study parasitic life cycles and parasite identification methods for both internal and external parasites of domestic animals, lab animals and birds. This class includes the collection and preparation of samples and diagnostic tests commonly used by veterinary technicians in the field and those available through commercial laboratory analysis. A survey of current therapy and products available for use will be included in this course. (Pre req: Intro to Laboratory Science with at least a 70%)
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

VTS 2662 HEMATOLOGY
Prerequisites: Parasitology with at least 70%
Description: Student will learn skills pertaining to the study of blood. Included in the class will be: principles of laboratory safety, proper operation and maintenance of clinical laboratory equipment (microscope, centrifuge, hemacytometer, refractometer, and hemoglobinometer) and preparation of microscopic slides (collection of samples, staining techniques, identification of blood elements, reporting of results, and identification of blood parasites). Correct techniques for performing total blood counts, hematocrits, differentials, reticulocyte counts, coagulation tests and hemoglobin determinations will also be included in this course.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

VTS 2733 DISEASES OF VET MED
Description: Students study the causes of animal diseases and the principles of preventive veterinary medicine pertaining to livestock, dogs, cats and laboratory animals. Study includes investigation of specific diseases and disease control measures including biosecurity as well as parasite management in animals. Important zoonoses are covered as well. The necropsy lab provides students the opportunity to learn proper necropsy technique, sample collection and submission for diagnostic tests and appropriate disposal procedures. (Pre req: Anatomy and Physiology and Intro to Microbiology)
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 2823 RADIOLOGY II
Description: This course is a continuation of Radiology I with emphasis placed on principles governing x-ray generation, establishment of technique charts, automatic film development, computerized imaging, exotic, equine, canine and feline radiographs and small animal contrast studies. (Pre req: C (70%) or higher grade in Radiology I)
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 2933 ANESTHESIOLOGY
Prerequisites: A grade of 70% or currently enrolled in Radiology II, Nursing II, Pharmacology and Hematology
Description: Principles of small animal inhalation anesthesia, pre-anesthetics, induction and maintenance anesthesia are covered in this class. Pre-surgical patient evaluations, risk classifications, monitoring techniques, equipment, inhalation machines, systems and safety are all studied in both a lecture and lab format. A 70% or higher in Anesthesiology is a pre-requisite Surgery Prep.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

VTS 2953 SURGERY PREPARATION
Description: (Pre req: 70% or higher in Anesthesia, Nursing II, Radiology I, and Clinical Pathology II) The student is introduced to the proper preparation of the surgical theater, instruments, equipment and the animal for aseptic surgery. Students perform all the supporting operating room tasks including pre-surgical screening, anesthesia, patient preparation, surgical assisting, suite set-up, pack preparation and recovery. Correct pre- and post-operative care of the patient is stressed. The lab is an integral portion of this course.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC