Certified Veterinary Assistant Level III Exam Application

PLEASE PRINT

Applicant’s Name: [ ]

(Please Circle): Mr. Ms. Mrs.

Applicant’s Address:

City, State, Postal Code:

Phone: [ ] Email: [ ]

Date of Application:

Applicant’s Signature:

By affixing my signature below, I certify that the applicant named above has worked under my supervision for at least 180 days since passing the CVA Level II exam, has demonstrated competency in the behaviors and skills checked herein, and I recommend that this applicant be considered for certification at Veterinary Assistant Level III.

Supervisor’s Name:

Supervisor Title (Circle) DVM TX LVT

Clinic Name:

Clinic Address:

City, State, Postal Code:

Clinic Phone: [ ] Fax: [ ]

Period of Observation: From date: [ ] To date: [ ]

Supervisor’s Signature:

Payment: The exam fee is $135/applicant. A check can be mailed or payment by credit card can be mailed or faxed to TVMA. Results will be mailed to the clinic after scoring is complete.

Visa/MC# ________________________ Exp Date: ________ VIN #: ________

Name on card: ________________________ Signature: ________________________

TVMA • 8104 Exchange Drive • Austin, Texas 78754 • 512/452-4224 • 512/452-6633 (fax)

SKILLS VALIDATION CHECKLIST CVA LEVEL III
(MUST BE SUPERVISED & CHECKED OFF BY DVM OR TX LVT ONLY)
Learning Modules and Objectives
Each course of study consists of one or more learning modules or instructional units together with related learning objectives. All objectives/skills must be addressed and the applicant able to describe, discuss or demonstrate each one.

CVA 301. General Veterinary Assisting. More advanced treatment of topics, including basic medical terminology, veterinary facility cleanliness and orderliness, health hazards in the veterinary practice, general knowledge of rabies, human/animal bond, and handling of sharps containers. Additional topics include animal breed identification, basic vaccination schedule, history taking, receiving food and inventory products, knowledge of current products on the market, and zoonotic diseases. New course topics include animal anatomy, ethics and professionalism, OSHA requirements in the veterinary practice, recognizing the veterinary emergency, standard medical abbreviations, the medical record and the physical examination.

Module 1. Basic Medical Terminology
   __ Spell and define the veterinary medical terms listed in Appendix A.

Module 2. Veterinary Facility Cleanliness and Orderliness
   __ Demonstrate a knowledge of basic sanitary procedures
   __ Demonstrate a knowledge of various disinfectants as related to disease control and monitoring procedures for bacterial contaminants
   __ Demonstrate a knowledge of aseptic procedures
   __ Demonstrate a knowledge of purchasing, receiving and storing drugs and equipment

Module 3. Health Hazards in the Veterinary Practice
   __ Demonstrate a basic knowledge of safe handling of animals, equipment and drugs utilized in a veterinary practice
   __ Demonstrate a knowledge of zoonotic diseases and public health risks
   __ Demonstrate a knowledge of the risks involved in the use of various dangerous drugs
   __ Demonstrate a knowledge of emergency procedures and first aid for humans as well as animals

Module 4. General Knowledge of Rabies
   __ Demonstrate a basic knowledge of animals affected by Rabies
   __ Demonstrate a basic knowledge of the etiology, clinical signs, treatment and prevention of Rabies
Demonstrate a knowledge of quarantine procedures for animals exposed to or suspected of having rabies

Module 5. The Human/Animal Bond
- Demonstrate a basic knowledge of the relationship between humans and animals
- Demonstrate a knowledge of the grieving process a client may experience as a result of the loss of a pet
- Demonstrate a knowledge of handling irate or unreasonable clients
- Demonstrate a knowledge of handling the client and animal prior to, during and following euthanasia of an animal

Module 6. Handling Sharps Containers
- Demonstrate a basic knowledge of how sharp instruments used in veterinary practice should be handled and disposed of after use
- Demonstrate a knowledge of OSHA regulations regarding the handling, placement and disposition of used “sharps”
- Demonstrate a knowledge of companies licensed to handle the disposal of used sharp containers and biological wastes

Module 7. Identifying Animal Breeds
- Demonstrate the ability to identify the most common breeds of dogs, cats, horses, cattle and swine
- Identify common breeds of sheep, goats, birds, and “pocket pets”

Module 8. The Basic Vaccination Schedule
- Demonstrate a knowledge of routine immunization procedures administered to most common small and large animal species
- Know the appropriate immunization procedures for birds and exotic animals

Module 9. Taking Patient Histories
- Demonstrate a knowledge of the appropriate questions to ask the client when taking the history of the patient
- Demonstrate the ability to differentiate post-history from present history
- Demonstrate ability to obtain a specific systems history

Module 10. Receiving Food and Inventory Products
- Demonstrate the ability to “check-in” products received by the veterinary clinic or hospital
Demonstrate the ability to record food, drugs, and equipment received by the veterinary clinic or hospital

Demonstrate the ability to record and store controlled substances received by the veterinary facility

Evaluate the condition of materials received in shipment by the veterinary facility

Properly handle damaged or contaminated goods received in shipment

Module 11. Knowledge of Current Products on the Market

Demonstrate a knowledge of current over-the-counter pet foods and pet supplies commonly dispensed by a veterinary clinic or hospital

Demonstrate a knowledge of over-the-counter products commonly dispensed by a veterinary clinic or hospital

Identify commonly used veterinary equipment

Demonstrate a knowledge of new drugs in the veterinary market

Module 12. Zoonotic diseases

Demonstrate a basic knowledge of epidemiological diseases recognized by the Texas Department of Health, including Rabies, Brucellosis, Tuberculosis, Mad Cow Disease, Lymes, Coccidioidomycosis, Yersina Pestis, Hog Cholera and Pseudorabies

Demonstrate a basic knowledge of public health concerns with veterinary medicine

List in order the levels of public health awareness from International to local, including Texas Department of Public Health, Center of Disease Control, County Public Health Departments, Texas Animal Health Commission

Module 13. Anatomy of Animal Species

Identify basic animal anatomy on a live animal as well as a pictorial

Be able to identify basic differences in species anatomy i.e. ruminates, camels, porcine, canine and felines

Demonstrate a knowledge of anatomy of the hoof, horns, and mammary gland

Module 14. Ethics and Professionalism

Be prepared to explain what professionalism and what ethics means to you

Demonstrate a basic knowledge of Texas Jurisprudence relating to Veterinary Medicine

Module 15. OSHA and Veterinary Practice

Demonstrate how to use a Material Data Safety Sheet
Demonstrate basic knowledge about eye washes, protective wear, and emergency procedures in house.

Module 16. The Veterinary Emergency: What is it?
- Demonstrate a basic knowledge about recognizing a true emergency i.e. Consciousness, Hemorrhaging, Toxicity, Cardiac Arrest, Apnea, Urinary Blockage, Dystocia, Seizures and fractures
- Demonstrate (in order) a basic examination procedure for evaluating an trauma victim

Module 17. Standard Abbreviation for medical records
- Give proper nomenclature for the abbreviation in Appendix B

CVA 302. Veterinary Exam Procedures. More advanced treatment of topics, including proper lifting and restraint skills, transporting animals to/from cages and stalls, safety precautions in the exam area, and another set of eyes and hands for the doctor. New course topics include client education, normal vital signs, and removing sutures

Module 1. Proper Lifting and Restraint Skills
- Demonstrate the proper lifting technique for dogs and cats
- Demonstrate the proper restraint technique for dogs and cats
- Correctly identify the drugs most commonly used for chemical restraint of animals, including Xylazine, Domitor, Acepromazine, Ketamine and Torbutrol or combinations

Module 2. Placing and Removing Animals from Cages and Stalls
- Describe/demonstrate the proper method for catching and haltering a horse
- Demonstrate the proper method for placing a lead on a dog
- Demonstrate the proper method for removing a cat from a cage
- Demonstrate the ability to move the “hard-to-handle” or fractious animal

Module 3. Safety Precautions in the Exam Area
- Describe how an animal might signal its intent to kick and/or bite
- Demonstrate how to restrain an animal that has the desire to bite
- Demonstrate how to apply a muzzle
- Demonstrate a knowledge of OSHA regulations pertaining to a veterinary practice, including the MSDS and the written hazard communication plan
- Recite your clinic’s fire evacuation plan
- Know how to properly label secondary containers with appropriate safety information
Module 4. Another Set of Eyes and Hands for the Doctor
   □ Show how to place a dog or cat in a sternal, dorsal, and lateral recumbency
   □ Demonstrate a skin twitch, foot restraint for the equine
   □ Subtly communicate with the doctor if you feel a lump or abnormality on the animal during restraint

Module 5. Client Education
   □ Provide new puppy information to clients, including advice on housetraining, puppy proofing the house, vaccination schedule, flea and tick control, chewing, feeding, spaying/neutering, and intestinal parasites
   □ Provide new kitten information to clients, including advice on litter box use, kitten proofing the house, vaccination schedule, Feline Leukemia Virus and Feline Immunodeficiency Virus testing, flea and tick control, feeding, spaying and neutering, and intestinal parasites

Module 6. Normal Temperature, Pulse, Respiratory, and CRT Measurements
   □ Demonstrate how to use and clean the rectal and ear thermometer
   □ Know the normal temperature for the dog, cat and horse
   □ Demonstrate consistency and accuracy in taking the pulse and respiration rates for dogs, cats and horses
   □ Demonstrate the proper way to measure the CRT

Module 7. Suture Removal
   □ Demonstrate the proper use of suture scissors in removal of suture
   □ Demonstrate proper evaluation of the incision following the removal of sutures

CVA 303. Veterinary Lab Procedures. More advanced treatment of topics in Courses, including safety in the lab area, fecal collection/handling, handling the disposal of dead animals, and collection of a voided urine sample, preparation of slides for cytology, appropriate venapuncture sites, preparing a mare for vaginal exam and cervical culture, and collecting ear mites using the swab method. Additional topics for this course include equipment training, blood film preparation, differential quick stain procedure, heartworm testing, handling of lab samples, identifying ecto- and endoparasites, performing a hematocrit, microbiology, electrocardiography, mastitis testing, drawing blood samples, and use of the automated cell counter

Module 1. Safety in the Laboratory Area
   □ Develop an understanding and proper use of sharps disposable containers
   □ Collect and dispose of bio-hazardous materials in a manner consistent with OSHA regulations
Module 2. Fecal Collection and Handling
  __ Demonstrate the proper usage of the fecal loop on small animals
  __ Demonstrate the proper procedure in obtaining fecal samples from the large animal, including use of the palpation sleeve
  __ Show the necessary practical knowledge of fecal quantities needed for flotations
  __ Recognize a fresh fecal sample

Module 3. Disposal of Dead Animals
  __ Explain the options available for disposition of euthanized or deceased animals, i.e., home, cemetery or communal
  __ Identify the options available through cremation, i.e., individual or communal
  __ Demonstrate the proper method in preparing the body for presentation
  __ Understand the need for proper decorum when presenting the deceased animal to its owner

Module 4. Collection of a Voided Urine Sample
  __ Demonstrate urine collection through catheterization of male animals
  __ Understand the procedure for urine collection through cystocentesis
  __ Demonstrate the collection of urine through natural means
  __ Explain why certain methods of collection can or cannot be used for culturing microorganisms
  __ Indicate which method of collection is preferred for bacterial cultures
  __ Explain the risks of injury to the patient for each method of urine collection
  __ State why the morning sample is generally the most desirable, i.e., it is most concentrated and least affected by diet

Module 5. Learning Appropriate Venapuncture Sites
  __ Name and locate common sites for venapuncture employed in all domestic animals
  __ Distinguish between sites commonly used and those not so commonly employed on various species

Module 6. Preparing a Mare for Vaginal Examination and Cervical Culture
  __ Describe and demonstrate the proper procedure in wrapping the tail in preparation for a vaginal examination or cervical culture
Module 7. Using the Ear Mite Swab

- Demonstrate proper technique in obtaining parasitic material inside the external ear canal
- Illustrate method for mounting parasitic material on microscope slide using oil
- Prepare microscope for viewing the parasite, i.e., proper objective for suspected parasite

Module 8. Learn appropriate blood handling procedures

- List the two sights most commonly used for venipuncture in a horse, cow, dog and cat
- Show how to make a blood film slide and proper staining techniques
- Show how to properly prepare a blood sample for an automated cell counter and a manual differential using differential quick staining procedures

Module 9. Identification of common ectoparasites

- Show a knowledge of recognition of lice, mites, fleas and ticks
- Show how to prepare a slide for lice and mites

Module 10. Heartworm Testing

- Explain proper time frames for heartworm testing and preventatives
- Demonstrate a basic knowledge about the heartworm cycle and be able to explain accurately to a client
- Demonstrate a basic knowledge about different heartworm testing procedures, including occult, direct, Knott’s, etc.

Module 11. Identification of common endoparasites

- Demonstrate how to set up a fecal sample using both floatation and sedimentation procedures
- Demonstrate how to set up and identify Giardia
- Demonstrate a knowledge about identifying: Coccidia, Ascarids, Strongyles, Trichuris, Ancyclostoma, Toxoplasma concerning shape, size and cell organization

Module 12. Microbiology: A Basic Understanding

- Demonstrate how to recognize on a prepared slide cocci, rods Gram+, and Gram- bacteria
- Demonstrate how to set up a culture plate, and antibiotic sensitivity plates
Module 13. Electrocardiography
   __ Demonstrate knowledge as to placing electrodes on the patient and the different leads

Module 14. Conduct Mastitis Testing
   __ Demonstrate how to prepare the udder and teats for sampling
   __ Demonstrate a basic knowledge of mastitis i.e. causes, color changes and testing procedures

Module 15. Urinalysis
   __ Demonstrate how to do a urinalysis with the dip stick method
   __ Show how to set up a slide for Sedimentation and Crystal Identification
   __ Show how to use a refractometer for specific gravity

CVA 304. Veterinary Medical Imaging. Review and/or more advanced treatment of topics, including safety in the radiology area; proper care of radiological equipment; radiology; labeling, filing, and storage of film; and replace/or replenish developer and fixer. Additional topics for this course include darkroom procedures, maintaining the radiological log, positioning of the patient, using a technique chart, cleaning radiographic screens, ultrasonography and OFA films for canine hip dysplasia

Module 1. Safety in the Radiology Area
   __ Understand the use of dosimeters
   __ Understand the necessary use of gowns, gloves, and other protective ware
   __ Demonstrate knowledge of the safety shut-off for the x-ray unit
   __ Understand and obey the prohibition against expectant mothers and children age 18 or under in the radiology area

Module 2. Proper Uses of Radiology Equipment
   __ Understand the production of x-ray images and the dangers involved
   __ Know the basic operation of the film processing system
   __ Demonstrate knowledge of the proper care and handling of cassettes and film

Module 3. Basic Procedures in Taking Radiographs
   __ Basic restraint procedures for positioning
   __ Demonstrate knowledge of using positional aids
Module 4. Labeling, Filing, and Storage of Film
   ___ Understand why film must be labeled
   ___ Be familiar with the implemented filing system whether it is numerical or alphabetical
   ___ Understand that film has an expiration date, ideal temperature and humidity, and proper storage technique

Module 5. Replace or Replenish Developer and Fixer
   ___ Demonstrate knowledge of correct procedure for replacing chemicals, i.e., mixing ratios and correct tank placement
   ___ Understand chemical contamination and the visual signs associated with it

Module 6. Darkroom Procedures
   ___ Demonstrate proper procedure in the use of the auto processor, including removal of film from cassette, labeling of film, reloading of film cassette, correcting fluid levels, and running daily test film
   ___ Demonstrate proper procedure in developing radiographs manually, including loading and unloading the film cassette, following time/temperature directions for developer and fixer, rinsing and drying film

Module 7. Maintaining the Radiological Log
   ___ Demonstrate knowledge and use of appropriate information for maintaining a radiological log, including radiograph number, patient’s name, date, machine settings for each view, body area exposed, and staff taking the radiograph

Module 8. Technique Charts
   ___ Show ability to correctly measure animal in the position for filming
   ___ Demonstrate use of chart for setting the X-ray machine and determining the appropriate kV value according to animal’s measurement

Module 9. Cleaning Screens
   ___ Demonstrate proper method for cleaning radiograph screens
Module 10. Ultrasonography

- Demonstrate ability to identify the parts of an ultrasound machine, including probe sizes
- Understand transverse vs. linear views
- Understand B mode vs. M mode echo
- Know how to restrain/position animal for appropriate area to be viewed
- Know how to prepare animal for ultrasonography
- Know how to clean the U/S machine after use

CVA 305. Kennel/Cage/Stall Area. Additional practice and more advanced treatment of topics including therapeutic bathing and dipping, safety in the patient confinement area, care and materials in the bedding area, proper maintenance of cage/kennel/stall area, and identification of large animal restraints and equipment. No new topics are introduced.

Module 1. Bathing and Dipping

- Demonstrate the ability to bathe and dip a patient or patients
- Understand the basic hazards and species susceptibilities to certain bath and dip products
- Demonstrate the ability to follow accepted procedures when bathing or dipping patients
- Demonstrate the ability to properly mix and use insecticides
- Demonstrate a knowledge of systemic insecticides, including indications and tonicities
- Demonstrate a knowledge of the clinical signs of insecticide poisoning in animals

Module 2. Safety in the Patient Confinement Area

- Demonstrate a knowledge of how to safely care for animals in runs, cages, stalls and paddocks
- Demonstrate the ability to work safely with critically ill or seriously injured patient
- Demonstrate the ability to use safe procedures when assisting the veterinarians with a client’s property
- Demonstrate an ability to recognize unsafe procedures and/or equipment in the confinement area

Module 3. Care & Materials in the Bedding Areas

- Demonstrate a knowledge of the types of bedding materials used in housing animals in a veterinary practice
- Demonstrate a knowledge of when bedding materials should be changed
Module 3. Care & Materials in the Bedding Areas (Continued)

___ Demonstrate a knowledge of the proper disposition of used bedding materials
___ Demonstrate a knowledge of the care and disposal of bedding material that has been used for patients with an infectious disease
___ Demonstrate a knowledge of special bedding needed by patients with unique problems
___ Demonstrate a knowledge of disinfection procedures of bedding areas
___ Demonstrate a knowledge of security of bedding areas

Module 4. Proper Maintenance of Cage, Kennel and Stall Area

___ Demonstrate a knowledge of, and the ability to recognize, hazards in the areas where patients are housed
___ Demonstrate a knowledge of proper sanitary procedures to use in changing bedding materials
___ Demonstrate a knowledge of common maintenance and repair requirements of cages, kennels and stalls, including the lubrication, repair and replacement of gate latches, hinges and other items
___ Demonstrate a knowledge of adequate feed and watering devices used in kennel or stall areas
___ Demonstrate a knowledge of auxiliary equipment kept in kennel or stall area

Module 5. Identification of Animal Restraints and Equipment

___ Demonstrate a knowledge of common restraint devices and equipment used in a mixed or large animal practice for the treatment of horses, cattle, goats and swine
___ Demonstrate the ability to use equipment commonly employed in a mixed animal veterinary practice
___ Demonstrate the ability to recognize specialized equipment that may be employed for use in a large animal practice

Module 6. Contagious or contaminated areas

___ Explain the protective clothing needed for isolation areas
___ Define what diseases may need isolation
___ Explain a basic knowledge of disposing of contaminated waste and carcasses
___ Explain a basic knowledge of sanitation procedure of isolation areas

Module 7. Immune-Suppressed Animals, Neonates, and Geriatrics

___ Explain and show a basic knowledge on special handling of immune suppressed animals
CVA 306. **Exotic Animals.** Review of the exotic animal species, together with additional species which may be more rarely encountered in the general veterinary practice or more often in the specialized practice. New topics will include the use of various restraint techniques appropriate to each of these animal species.

**Module 1. Identification of Common Species**

- Demonstrate the ability to recognize the exotic animals most commonly encountered in a veterinary practice
- Demonstrate the ability to recognize the laboratory animals most commonly encountered in a veterinary practice
- Demonstrate the ability to recognize the animals most commonly encountered in zoo medicine

**Module 2. Safety in the Patient Confinement Area**

- Demonstrate a knowledge of safe handling methods for exotic and laboratory animals
- Demonstrate a knowledge of restraint techniques used with common exotic and laboratory animal species

**Module 3. Basic Animal Care**

- Demonstrate basic animal care procedures when working with birds, including:
  - a. Provide accurate and helpful client education concerning bird husbandry at home, including how to bring a bird to the veterinary clinic, how to provide a proper environment for the bird, and how to provide food and water
  - b. Use proper procedure when assisting with birds, including assisting in the collection of fresh fecal specimen, oral examination, crop wash, venapuncture, and radiographs
  - c. Practice appropriate bird husbandry in the clinic setting, including administration of medications, administering wing clips, trimming nails, providing proper environment, and taking weights and examining feces

- Demonstrate basic animal care procedures when working with reptiles, including:
  - a. Provide accurate and helpful client education concerning reptile husbandry at home, including natural habitat of animal, environmental requirements, food and water regimen, and feces habits
  - b. Use proper procedure when assisting with reptiles, including assisting with a colonic wash, stomach lavage, venapuncture, and radiographs
  - c. Practice appropriate reptile husbandry in the clinic setting, including providing the appropriate environment, assisting with medications, and providing the appropriate diet of food, water and vitamins
Module 3. Basic Animal Care (Continued)

Demonstrate basic animal care procedures when working with ferrets, including:

a. Assisting in the collection of samples and giving medications
b. Providing sound client education
c. Understand the risk of exposure to human and other animal diseases
d. Demonstrate an understanding of the necessity of heartworm preventative and the use of feline flea control products
e. Know what depressed or moribund behavior indicates

Demonstrate basic animal care procedures when working with rabbits, including:

a. Demonstrate proper restraint technique with injured rabbits and rabbits undergoing radiography
b. Demonstrate ability to assist the doctor with IV medications and taking a blood sample

demonstrate basic animal care procedures when working with rodents, including:

a. Demonstrate knowledge of penicillin-related risks in guinea pigs, rabbits and hamsters
b. Understand the appropriate breeding age of female guinea pigs
c. Demonstrate the ability to prepare and maintain the proper living environment for rodents
d. Demonstrate awareness of nutritional needs peculiar to rodents

CVA 307. Surgical Preparation and Assisting. Review and/or more advanced treatment of topics, including identifying surgical instruments, cleaning and sterilizing instruments, safety in the preparation and surgery area, assisting with routine surgical procedures, using the autoclave, and properly positioning a patient for surgery. New topics: including aseptic technique in preparation of surgery sites; sterility and the surgery suite; masking, gloving, gowning, and draping; assisting in anesthesia; post surgical patient care; care of the newborn; steam, gas and cold sterilization; assessment of the surgical patient; recognizing anesthetic emergencies; using an esophageal stethoscope; maintaining general anesthesia; and operating the pulse oximeter

Module 1. Equipment Training

Initiate and complete the proper autoclaving of instruments using moist pressure autoclave, gas sterilization (ethylene oxide) and chemical sterilization
Module 2. Cleaning of Instruments

- Design a standard procedure for cleaning all stainless steel instruments
- Outline the procedure for ultrasonic cleaning of instruments
- Illustrate the techniques employed in lubricating instruments during the cleaning process
- Demonstrate proper procedure for preparation of small and large animal surgery packs

Module 3. Safety in the Prep and Surgery Area

- Insure that all dental equipment is clean and usable for performing prophylactic treatments
- Assess all safety stations to insure that they meet OSHA standards
- Determine that all active scavengers are working properly in evacuating anesthetic gases as needed
- Insure that all sharp and cutting blades are removed and disposed of properly following surgical procedures

Module 4. Identification of Instruments

- General surgical pack, small animal
- General surgical pack, large animal

Module 5. Surgical preparation of patient, preparation of the surgery room for Doctors and Assistants

- Demonstrate a knowledge of shaving, prepping, surgical scrubs for Surgery
- Demonstrate a knowledge of preparing special needs areas like eyes, ears and orthopedics
- Demonstrate how to set up the surgical suite and surgical prep areas for doctors and assistants

Module 6. Steam, Gas and Cold Sterilization Procedures

- Demonstrate how to use an autoclave safely and the steps that are required from turning on the autoclave to taking out the autoclaved packs
- Demonstrate a basic knowledge on the use, operation and safety procedures
- Demonstrate a basic knowledge of cold sterilization as per instruments, fluids, cleaning procedures, frequency, and limitations of sterility
Module 7. Care of the newborn

- Show a basic knowledge about equine neonates special needs as related to constipation, tetanus, colostrums, isoerytholosis, and passive immunity
- Show a basic knowledge about colostrums and passive immunity in bovine, caprine, ovine, canine and feline
- Show how to handle and revive small animal neonates after a Caesarian section or normal delivery
- Show a basic knowledge about hypoglycemia and hypothermia as related to neonates

Module 8. Anesthesia Monitoring

- Explain and show a basic knowledge of pulse oximeter, apnea alerts and esophageal stethoscopes
- Explain a basic knowledge of a crash cart, anesthetic emergencies, CPR
- Show or demonstrate a basic knowledge about surgical assessment of the patient during surgery, including which parameters should be monitored and logged
- Demonstrate a basic knowledge about post surgical care
- Explain why animals must be fasted prior to anesthesia
- Explain the different planes of anesthesia to monitor depth of Anesthesia. Explain why hypoventilation is dangerous for the patient

CVA 308. Veterinary Animal Nursing. A review and advance treatment of topics, including giving medications (oral/topical/basic), preparing feeds, hydrotherapy, nail trimming, basic first-aid, observation of hospitalized patient, prescription diets, enema administration, open wound care, assisting in the breeding animal, and cleaning and care of endoscopic equipment. New topics include subcutaneous parenteral injections; application of bandages; dental prophylaxis; nutrition; emergency protocols; care of the orphan animal; expressing anal sacs; ear cleaning; maintaining and administering fluids; marking and tattooing animals; physical therapy; performing fluorescein stain, tonometry, and Schirmer tests; and care of the recumbent patient

Module 1. Giving Medications

- Describe and demonstrate the proper method for administration of a topical and an oral drug
  - a. Equine: paste or topical
  - b. Bovine: bolus, paste or topical
  - c. Canine/feline: tablets, capsules, liquid, topical
Module 2. Food Preparation
- Describe the proper method and procedures for storage of animal feeds
- Demonstrate correct measurement of food quantities
- Demonstrate accurate reading of food labels
- Demonstrate correct reading and performance of written instructions for animal feeding
- Correctly report animal food and water consumption rates

Module 3. Performing Hydrotherapy
- Define and describe the correct procedure for hydrotherapy
- Describe proper administration of hydrotherapy

Module 4. Trimming Nails
- Demonstrate proper technique for trimming nails on dogs and cats
- Describe proper foot care for the equine

Module 5. Providing Basic First Aid
- Define what an emergency is
- Describe what is required to administer C.P.R

Module 6. Observing the Hospitalized Patient
- Describe normal behavior of dog, cat, horse, and cattle
- Define situation which requires notification of the RVT or DVM

Module 7. Prescription Diets
- List diseases that can be managed with prescription diets
- List prescription diets available

Module 8. Administering Enemas
- Describe restraint needed to administer an enema
- List equipment needed to administer an enema
- Demonstrate the proper manner of preparing enema fluids and administering enemas

Module 9. Caring for Open Wounds
- Describe methods of wound protection/bandaging
Module 10. Assisting in the breeding Animal
  __ Define Artificial Insemination
  __ List equipment needed for AI of canine, equine and bovine

Module 11. Cleaning and Care of Endoscopic Equipment
  __ Be able to identify an endoscope
  __ List three things not to do to an endoscope
  __ List supplies needed for cleaning an endoscope before storage

Module 12. Giving Medications
  __ Describe how to properly prepare for and administer subcutaneous injections

Module 13. Applying Bandages
  __ Demonstrates the ability to clean an open wound
  __ Can describe methods of wound protection, medication and bandaging

Module 14. Dental prophylaxis
  __ Be able to recognize common dental instruments, including scalars, elevators, probes, polishers and curettes
  __ Demonstrate knowledge of common dental procedures and techniques, including:
    __ a. Manual and machine techniques for removing sub gingival tartar
    __ b. Probing and measuring depth of pockets
    __ c. Observe teeth and note missing teeth, fractured teeth, cavities, and neck lesions,
    __ d. Observe gums and note swelling, inflammation, drainage, and growths
    __ e. Examine lips, tongue for ulcerations or growths
    __ f. Alert the doctor to loose teeth, fractured teeth, growths, deep pockets, etc.
    __ g. Smoothing of enamel with polisher
  __ Understand the need for abscess/pain medicine

Module 15. Basic Nutrition
  __ Demonstrate knowledge of nutritional needs based on life stages and size of animal
  __ Demonstrate understanding of prescription diets, including
    __ a. Learning objectives under CVA 208, “Prescription Diets”
    __ b. Nutritional needs based on nature of disease such as kidney and urinary tract diseases and trauma
Module 16. Emergency Protocols

- Can demonstrate and knows CPR procedures, including assessment of airway, breathing, and circulation and the application of chest compression and breathing assistance
- Understand how to respond to emergency situations, including seizures, GCV, poison, heat stroke, dystocia, bleeding, trauma, and inability to urinate

Module 17. Orphan Animal Care

- Demonstrate ability to identify animals less than three weeks of age and to give appropriate care to newborns, including temperature control, feeding, stimulation of elimination functions, and provisions for bedding
- Demonstrate ability to identify animals that are more than three weeks of age and to give appropriate care to these animals, including food formulas and getting animal to eat, water, urination and defecation, and socialization

Module 18. Expressing Anal Sacs

- Demonstrate the proper technique to express anal sacs on dogs and cats

Module 19. Ear Cleaning

- Describe the safety measures for cleaning ears
- Demonstrate the ability to clean both dog and cat ears

Module 20. Fluid Administration and Maintenance

- Demonstrate knowledge of proper procedure for administering fluids subcutaneously
- Demonstrate understanding of:
  - a. How to maintain the IV line and catheter
  - b. How to maintain proper fluid dispense rate with or without use of fluid pump
  - c. How to ensure continuous flow of IV fluid in feline patients

Module 21. Marking and Tattooing Animals

- Know how and where to tattoo dogs for ID purposes
- Know how to read greyhound tattoos
- Know local standards for tattoos in bite cases
- Know how to put ear tags in cattle
- Know how to read notches in pigs’ ears
- Know advantages and disadvantages of microchips and how to scan for them
Module 22. Physical Therapy

- Demonstrate how to use swimming to aid recovery from back/leg injuries
- Know how to use “bicycling” the leg following FHO procedure or in a paraparetic animal
- Know how to properly walk an animal with a support sling
- Coupage for pneumonia treatment

Module 23. Eyes

- Demonstrate knowledge of proper use of fluorescein, including preparation of the eye, application of fluorescein, examination of corneas, use of woods lamp, drainage through nasolacrimal ducts
- Understand the function and use of the Schiotz tonometer, including use of computerized tonometer, calibration, taking a reading, and confirming a reading
- Understand the function and use of the Schirmer

Module 24. Care of the Recumbent Patient

- Demonstrate ability to prepare bedding to reduce risk of ulceration to pressure points
- Know how and when to turn patients and to do coupage
- Demonstrate understanding of need to keep patient clean and dry, including emptying of bladder and removal of feces
- Know how to maintain muscle tone in patient’s legs
- Demonstrate ability to hand or tube feed a recumbent patient and the use of parenteral nutrition

Module 25. Intramuscular Injections

- Identify appropriate IM injection sites
- Know how to administer IM injections

Module 26. Catheterization (Limbs)

- Identify common sites for catheter placement, including cephalic, lat saphenous, jugular
- Demonstrate ability to prepare area for IV catheter placement
- Demonstrate proper technique for placement of catheter

Module 27. Maintain Pharyngostomy Tubes

- Understand the purpose of the pharyngostomy tube
- Know how to flush water through pharyngostomy tube to insure patency
- Know how to keep the pharyngostomy tube and the insertion point through skin clean
Module 28. Tube Feeding

- Recognize the different types of tube feeding, including nasogastric, orogastric, pharyngostomy, esophagostomy, gastrostomy, jejunostomy
- Understand the different types of diets required for various types and locations of the feeding tube
- Be able to follow a feeding schedule determined by the doctor as to frequency and quantity to be fed
- Know how to prepare diet for tube feeding and be able to syringe food into the tube
- Know how to judge when appropriate amount has been given

CVA 309. Veterinary Pharmacy and Pharmacology. A review and more advanced treatment of topics, including syringe use and disposal and safety in the pharmacy area. New topics will introduce: labeling, packaging and dispensing drugs and recognizing general groups of drugs

Module 1. Syringe Use and Disposal

- Identify the following sizes of syringes commonly used in veterinary medicine: 3cc, 6cc, 12cc, 20cc, 35cc, 60cc, 1cc tuberculin, insulin
- Demonstrate the proper method employed in:
  - a. Filling a syringe with medication
  - b. Administering medication through non-vascular parenteral application
  - c. Calculating the precise volume of medication in the filled syringe, i.e., reading the calibration from the front or top ring
- Illustrate individual knowledge in the common methods of parenteral application, including intravascular, intramuscular, subcutaneous and intraperitoneal
- Verify an understanding of the numerous needle gauges and length variations
- Explain the proper and improper method of disposing of syringes, needles and other sharp objects

Module 2. Safety in the Pharmacy Area

- Identification of controlled substances
- Understanding proper storage and record keeping for controlled substances
- Identifying expired substances and knowing how to properly dispose of them

Module 3. Dispensing drugs

- Give an example of all of the required identifiers on a Pharmacy label that the Texas State Board requires
- Always double check all items, dispensing bottle, pharmacy bottle and record before releasing a prescription
Module 4. Recognizing General Groups of Drugs
- Show a basic knowledge of the general groups of pharmacologicals, i.e. antibiotics, antiinflammatories, intestinal motility modulators, steroids
- Identify the need for organization, inventorying, and checking expiration dates in a pharmacy

Module 5. Controlled Substances and the Law
- Demonstrate how to use a controlled substance log input and dispensed
- List the safety procedure for storing controlled substances
- Basic knowledge of recognizing expired controlled substances and contacting authorities about disposing of controlled substances properly

Module 6. Syringe Use and Disposal
- Explain the proper method of disposing of syringes, needles and other sharp objects
- Show how to calculate a dosage from concentration of drug, weight of animal, and required dosage
- Give the correct alignment from smallest to largest of needles beginning with a 12 g, 18 g, 20 g, 22 g and 25 g

Module 7. Route of Administration
- The intrinsic factors that determine route of administration include absorptiveness of drug, distribution, excretion and metabolism
- Extrinsic factors may include temperament of animal, basic working facilities and availability.

CVA 310. Practice and Client Relations. A review and more advanced treatment of topics, including procedures to use in making appointments (type of appointments), basic filing of medical records, radiographs, basic communication skills (verbal/telephone/written), the computer in the veterinary practice, admission and discharge of medical patients. Additionally, instruct in properly admitting and discharging medical patients and in the preparation of appropriate certificates for large and small animal patients

Module 1. Admit and Discharge Non-medical Patients
- Collect/obtain information relative to the animal being boarded and/or discharged
- Discuss the charges of, rationale for, and boarding costs
- Post/record money collected to the appropriate place
- Cheerfully interact with clients

Module 2. Make Patient/Client Appointments
- Demonstrate and/or describe the method to schedule an appointment using positive reinforcement techniques
Module 3. Filing Medical Records, Radiographs and Other Documents
___ Define the different methods by which a medical record or radiograph can be stored and filed
___ Demonstrate the proper method for filing a medical record, radiograph and rabies or health certificate

Module 4. Verbal, Telephone and Written Communication Skills
___ Be able to demonstrate proper verbal skills when greeting clients
___ Be able to demonstrate proper telephone skills

Module 5. Understanding and Use of the Computer in the Veterinary Practice
___ Define basic computer terms such as monitor, CPU, keyboard, printer, modem, software, hardware, disk, field and memory
___ Demonstrate the ability to open and retrieve client data on a computer with software designed for veterinary use
___ Demonstrate the ability to print a client invoice for patient discharge, and rabies certificate for the client

Module 6. Admitting and Discharging Medical Patients
___ Demonstrate knowledge and ability to:
___ a. Collect patient information such as major symptoms, current diet and medications, brief history, etc.
___ b. Review estimate of diagnostic tests and treatment costs
___ c. Collect deposit, if necessary
___ d. Obtain signed consent form for surgery, anesthesia and/or treatment, including phone number where client can be reached
___ e. Have client identify location of growths or suspicious spots and mark sites visually
___ f. Alert the client and doctor if any lab tests will be required prior to anesthesia
___ g. Ask the client if she/he would like animal to have dental prophy while animal is under anesthesia for surgery
___ h. At discharge, review bill and collect payment
___ i. Review discharge instructions with client, including directions for feeding, exercise restrictions, incision and wound care, follow-up appointment, and administration of medications
___ j. Demonstrate ability to prepare appropriate certificates, including Rabies, health, proof of vaccination, Coggins test, Brucellosis test, pseudorabies, and hog cholera
Appendix A
Basic Medical Terminology

Anesthesia  
the resulting condition that leads to a loss of sensation and consciousness needed for surgery

Anorexia  
a loss of appetite

Aortic Valve  
the valve separating the left ventricle from the aorta

Apnea  
the cessation of breathing

Ascites  
fluid buildup in the abdomen usually from liver failure or right sided heart failure

Aural  
tissue and organs associated with the ear

Bradycardia  
the slowing down of the heart rate

Caecum  
In Carnivores and Omnivores a usually small out pouching, located at the junction of small and large intestines, in herbivores, it is an extremely large and important part of the anatomy and digestion

Camelids  
three compartment stomach animals i.e. llama, alpacas

Caudal  
position of the body or structures located towards the tail

Colic  
a term used to denote abdominal pain

Colostrums  
refers to the first milk after parturition that contains high levels of antibodies

Cranial  
positioning of the body or structures located towards the head

Diabetes Mellitus  
a condition that results in the pancreas not producing enough insulin resulting in hyperglycemia

Diaphragm  
a muscle that separates the abdomen from the thorax and is important in respiration

Diarrhea  
condition of bowel movements occurring more frequently than normal

Dorsal  
positioning of the body or structures located on the back side

Duodenum  
that portion of the small intestine located directly after the stomach

Dyspnea  
difficulty with breathing

Dystocia  
difficulty with labor and delivery

Ehrlichia  
Rickettsial organism

Electrocardiogram  
EKG or ECG A measurement of electrical activity across the heart to determine arrhythmias or defibrillation

Giardia  
a flagellate protozoan organism often causing diarrhea

Hepatic  
tissues associated with the liver

Hyperglycemia  
a condition in which the pancreas is not producing enough insulin, or in cats, a possible reaction to stress

Hyperthermia  
the condition in which the body has a higher than normal internal temperature

Hyperthyroid  
a condition in which the thyroid gland is over producing, overproduction of thyroid hormone

Hypothermia  
the condition in which the body has a lower than normal internal temperature

Insulinoma  
a tumor in the pancreas that produces high levels of insulin causing hypoglycemia
Appendix A (continued)

Lateral  positioning of limbs structures on the limbs away from the center of the body

Leukemia  a disease or cancer resulting in an abnormal blood hemogram

Lipemia  condition in which the serum contains high amount of fats

Medial  positioning of limbs or structures on the limbs on the inside

Mitral Valve  the two leaved valve separating the left atrium from the left ventricle

Musculoskeletal  muscles and bone, dynamics, and kinetics of the supporting systems

Myopathy  a syndrome or disease involving the muscles

Oblique  a direction that cut across the regular planes in a diagonal fashion

Occult  hidden from view

Os Penis  a bone located in the penile tissue surrounding the urethra in the dog

Palmar  relating to the bottom side of the front paw or hoof

Paralysis  the permanent loss of nerve sensation

Paresis  the temporary loss of nerve sensation

Periodontal  the structures that surround the tooth

Plantar  relating to the bottom side of the back paw or hoof

Plasma  the fluid that is separated from a whole blood sample that includes all clotting factors and protein

Pneumonia  a condition in the lung resulting from infection

Polypnea  rapid breathing

Prion  a sub particle responsible for disease conditions like Mad Cow Syndrome

Prostate  accessory sex organ located caudal to the neck of the bladder

Pulmonary  pertaining to the lungs, bronchi, and vasculature of the lungs

Pulmonary Valve  the valve separating the right ventricle from the Pulmonary artery

Renal  tissue related to the kidneys

Scrotum  sack that contains the testicles

Serum  the fluid that is separated from whole blood sample that is void of clotting factors and protein

Sternal  positioning the body on the sternum or chest

Tricuspid Valve  the three leaved valve separating the right atrium from the right ventricle

Tuberculosis  an acid fact bacilli that live in the lungs of both ruminates and humans, an epidemiological disease

Urethra  tubular structure leading away from the urinary bladder

Ventral  positioning of the body or structures located on the side away from the back

Ventricles  the chambers of heart responsible for pumping blood to the lung and body

Vulva  external structure that leads into the Vagina in females
## Appendix B
### Common Medical Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALK</td>
<td>Alkaline Phosphatase</td>
</tr>
<tr>
<td>BID</td>
<td>Dosing every 12 hours</td>
</tr>
<tr>
<td>BUN</td>
<td>Blood Urea Nitrogen</td>
</tr>
<tr>
<td>BX</td>
<td>Biopsy</td>
</tr>
<tr>
<td>C &amp;S</td>
<td>Culture and Sensitivity</td>
</tr>
<tr>
<td>CBC</td>
<td>Complete Blood Count</td>
</tr>
<tr>
<td>CPH</td>
<td>Chloramphenicol</td>
</tr>
<tr>
<td>COPD</td>
<td>Chronic Obstructive Pulmonary Disease</td>
</tr>
<tr>
<td>CPR</td>
<td>Cardio-Pulmonary Resuscitation</td>
</tr>
<tr>
<td>C-Section</td>
<td>Caesarian section</td>
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<tr>
<td>DDX/DIFF</td>
<td>Differential diagnosis</td>
</tr>
<tr>
<td>DIC</td>
<td>Disseminated Intravascular Coagulation</td>
</tr>
<tr>
<td>DOA</td>
<td>Dead on Arrival</td>
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<tr>
<td>DX</td>
<td>Diagnosis</td>
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<tr>
<td>ECG/EKG</td>
<td>Electrocardiogram</td>
</tr>
<tr>
<td>EEG</td>
<td>Electroencephalogram</td>
</tr>
<tr>
<td>ELISA</td>
<td>Enzyme-Linked Immunosorbent Assay</td>
</tr>
<tr>
<td>EOD/QOD</td>
<td>Dosing every other day</td>
</tr>
<tr>
<td>Ex</td>
<td>Exam</td>
</tr>
<tr>
<td>FLUDT</td>
<td>Feline lower urinary tract disease</td>
</tr>
<tr>
<td>FX</td>
<td>Fracture</td>
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<tr>
<td>GVD</td>
<td>Gastro-volvulus dilation</td>
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<tr>
<td>HBC</td>
<td>Hit by Car</td>
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<tr>
<td>HW</td>
<td>Heartworms</td>
</tr>
<tr>
<td>HX</td>
<td>History</td>
</tr>
<tr>
<td>IBD</td>
<td>Inflammatory Bowel Disease</td>
</tr>
<tr>
<td>IOP</td>
<td>Intraocular Pressure</td>
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<tr>
<td>PCV/HCT</td>
<td>Packed Cell Volume/Hematocrit</td>
</tr>
<tr>
<td>PD</td>
<td>Polydipsia Excessive Thirst</td>
</tr>
<tr>
<td>PDA</td>
<td>Patent Ductus Arteriosus</td>
</tr>
<tr>
<td>PPA</td>
<td>Phenylpropanolamine</td>
</tr>
<tr>
<td>PU</td>
<td>Polyuric Excessive Urination</td>
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<tr>
<td>QID</td>
<td>Dosing every 6 hours.</td>
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<tr>
<td>RBC</td>
<td>Red blood cell, RBC count or hemogram</td>
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<tr>
<td>Rx</td>
<td>Prescription</td>
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<tr>
<td>S.G.</td>
<td>Specific Gravity</td>
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<tr>
<td>SID/QD</td>
<td>Dosing every 24 hours.</td>
</tr>
<tr>
<td>TID</td>
<td>Dosing every 8 hours</td>
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<tr>
<td>TPR</td>
<td>Temperature/Pulse and Respiration</td>
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<tr>
<td>TX</td>
<td>Treatment</td>
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<tr>
<td>U/S</td>
<td>Ultrasound</td>
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<tr>
<td>UA</td>
<td>Urinary Analysis</td>
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<tr>
<td>URT</td>
<td>Upper Respiratory Tract</td>
</tr>
<tr>
<td>V/D</td>
<td>Vomiting /Diarrhea</td>
</tr>
<tr>
<td>WBC</td>
<td>White blood cell count or leukogram</td>
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