**Vet Med 1**

**A. CAREER OPPORTUNITIES**

1. Describe career areas in food animal care and production, pleasure and service animals, animal services, education, communications, etc.
2. Explain the importance of career choices and discuss opportunities in veterinary science.
3. Identify job requirements and benefits of the veterinary industry.
4. List and explain employer expectations.
5. Describe good work habits.
6. Explain the importance of dress, hygiene, promptness, eye contact, friendliness, manners, communication skills and the overall attitude during the interview process.

**B. IMPORTANCE OF ANIMALS IN OUR SOCIETY**

1. Explain the relationship between humans and animals.
2. List the different animal issues and discuss the range of viewpoints regarding these different issues.
3. List animal agencies and discuss their stand on animal rights and animal welfare.
4. Research current issues concerning animal rights vs. animal welfare.
5. Develop proper communication skills concerning animal rights vs. animal welfare issues by debating both sides of the issue.

C. ETHICS AND THE LAW

1. Explain what professionalism and what ethics means to you
2. List specific laws that affect animal care in a veterinary clinic.
3. Discuss the effects these laws have on management and operations of a veterinary practice.

**D. VETERINARY HOSPITAL SAFETY**

1. Explain emergency procedures and first aid for humans as well as animals.
2. Read an MSDS report and locate important safety information.
3. Explain how to collect and dispose of bio-hazardous materials in a manner consistent with OSHA regulations.
4. Discuss the etiology, clinical signs, treatment and prevention of rabies.
5. Explain quarantine procedures for animals exposed to or suspected of having rabies.
6. Demonstrate how to properly put on protective clothing and gloves.
7. Explain the sanitation procedures used in isolation areas.
8. Explain and demonstrate how to remove and properly disposes of syringes, needles, cutting blades and other sharp objects commonly used in the veterinary clinic.
9. Identify and discuss safety procedures to follow when assisting the veterinarians with a client’s property.
10. Discuss the proper methods used concerning the disposal of contaminated waste and carcasses.
11. Determine the appropriate safety precautions and cleaning method to be used for a given scenario.

E. BASIC VETERINARY MEDICAL TERMINOLOGY

1. Demonstrate the use of a medical dictionary in finding and defining medical terms.
2. Recognize, define, spell, and pronounce medical terms related to pathology and procedures.
3. Describe the types of medical word parts and state how each type is used.
4. Identify body systems by their components, functions, and combining forms.
5. Identify prefixes that assign numeric value.
6. Spell and define commonly used medical word parts.
7. State the rules for use of the combining vowel in medical terminology.

**F. POSOLOGY**

1. Define the terms dose, dosage and concentration.
2. Review basic math skills involving measurement and conversion of linear, liquid, weight, and Celsius and Fahrenheit.
3. Review ratio and dimensional analysis skills that are used for dosage calculations.

**G. ANIMAL MANAGEMENT**

1. Identify common animal behavioral problems.
2. Explain ways animals show social behaviors and describe the indicators of play.
3. List what is considered by most animals to be threatening gestures and explain how to handle an animal to indicate that you are not a threat.
4. Develop a handling protocol for animals visiting the clinic.
5. Describe a behaviorally healthy dog.
6. Define aggression, list the three categories of aggression and explain indicators for these categories.
7. List the body parts and discuss the body postures which should be observed when interpreting behavior for variety of animals.
8. Define aggression and explain what constitutes the different types of aggression.
9. Practice interpretation of various animal behaviors.

H. RESTRAINT OF ANIMALS

1. Demonstrate how to safely handle, lift, restrain and position dogs, cats, exotics, birds and farm animals for examination and treatment.
2. Correctly identify the drugs and doses most commonly used for chemical restraint of animals, including Xylazine, Domitor, Acepromazine, Ketamine and Torbutrol or combinations.
3. Demonstrate a skin twitch and foot restraint for the equine.
4. Explain safety precautions when handling critically ill or seriously injured patients.
5. Demonstrates the ability to move the “hard-to-handle” or fractious animal
6. Demonstrate how to restrain an animal that has the desire to bite.

I. ANATOMY AND PHYSIOLOGY

1. Recognize and implement common anatomical terminology.
2. Discuss animal reproduction, breeding, and genetics.
3. Explain the anatomy and physiology of the skeletal, muscular, respiratory, circulatory, nervous, digestive, genitourinary and endocrine systems of animals and compare the differences.
4. Describe normal behavior for a variety of animals according to their vital life signs.
5. Identify the parts of the eye, ear, nose, and foot/hoof for of animals commonly found at a small, large and mixed practice.
6. Identify and label the parts of a bone and describe the classification.
7. Classify the major categories of fractures and explain the healing process.
8. Identify the different types of muscle and identify common intramuscular injection sites.
9. Identify and explain the different types of neurons.
10. Explain the structures of the heart and locate the major veins and arteries.
11. Name and locate common sites for venapuncture employed in all domestic animals

**J. PRINCIPALS OF DISEASE**

1. Discuss the identification and quarantine procedures used in prevention of the spread of animal diseases.
2. Discuss the proper use of disinfectants that are used to prevent the spread of animal diseases.
3. Determine effects of nutritional diseases on animals and identify the means of dietary management used to control and prevent diseases.
4. Identify the use of pharmaceuticals for immunization and other means of preserving or improving animal health.
5. Discuss the effect of rickettsial diseases.
6. Explore reproductive problems in animals.
7. View prepared slides showing both external and internal parasites and practice identification.
8. Explain the steps involved in setting up a fecal sample using both floatation and sedimentation procedures.
9. Identify various toxic substances and explain the protocol used to treat poisoning.

K. CUSTOMER SERVICE, MARKETING & CLIENT RELATIONS

1. Demonstrate the ability to follow both verbal and written directions.
2. Identify the basic four types of telephone calls and identify calls that may be emergencies.
3. Demonstrate and/or describe the method to schedule an appointment using positive reinforcement techniques.
4. Demonstrate the ability to write efficiently when taking a message or scheduling an office appointment.
5. Practice telephone usage by answering the telephone properly for different given scenarios.
6. Identify the three most common unmet expectations which can lead to the client becoming upset.
7. List and describe various emotions that indicate a client is upset.
8. List and describe the steps involved in handling difficult clients.
9. Practice resolving problems using a variety of scenarios.
10. Prepare appropriate certificates, including Rabies, health, proof of vaccination, Coggins test, Brucellosis test, pseudorabies, and hog cholera.
11. Define the different methods by which a medical record or radiograph can be stored and filed.
12. Demonstrate the proper method for filing medical records, radiographs and rabies/health certificates.
13. Demonstrate the ability to open and retrieve client data on a computer with software designed for veterinary use.
14. Demonstrate the ability to print a client invoice for patient discharge, and rabies certificate for the client.
15. List the appropriate questions to ask the client when taking the history of the patient.
16. Collect patient information such as major symptoms, current diet, medications, and brief history.

**L. VETERINARY MEDICAL IMAGING**

1. Prepare a radiological log using appropriate information including radiograph number, patient’s name, date, machine settings for each view, body area exposed, and staff taking the radiograph.
2. Explain the purpose of using protective ware and monitoring devises during an x-ray.
3. Discuss the proper care and handling of cassettes.
4. Discuss film expiration date, ideal temperature and humidity, and proper storage techniques.
5. Explain the implemented filing system whether it is numerical or alphabetical.
6. Discuss the correct procedure for replacing chemicals, i.e., mixing ratios and correct tank placement.
7. Identify and list chemical contamination and the visual signs associated with it concerning radiographs.
8. 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.
9. 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.
10. Demonstrate proper method for cleaning ultrasound and radiograph equipment.
11. Demonstrate the basic handling and restraint procedures for positioning an animal for a radiograph or ultrasonography.

M. ANIMAL NUTRITION

1. Define ration and discuss the essentials of a good ration.
2. Explain the differences of a growth, maintenance, finish, lactating, and reproductive ration.
3. Discuss the difference between a concentrates and roughage and give examples of each.
4. Define feed additives and explain how some of these affect humans.
5. Develop a “rule of thumb” list concerning feeding of animals.
6. Define palatability and compare different feed ingredients according to their palpability.
7. Determine the value of rations according to TDN.
8. Calculate the dry matter for various feeds and determine feeding rations according to an animals energy requirements based on usage and its stage of life.
9. Evaluate various food labels to determine the nutrient components and their quality.
10. Evaluate various food labels and advertisements to determine marketing strategies.
11. Describe the proper method and procedures for storage of animal feeds.

**N. CLINICAL EXAMS**

1. Discuss animal abnormalities as they apply to genetics and explain the affect it has on health.
2. Explain how to perform a regional examination on animals found at a small, large, and mixed practice.
3. Demonstrate consistency and accuracy in taking the pulse and respiration rates for a variety of small and large animals.
4. Demonstrate the ability to use equipment commonly employed in a mixed animal veterinary practice i.e. how to use and clean the rectal and ear thermometer.

**O. LABORATORY TECHNIQUES**

1. Collect fecal samples using a fecal loop and palpation sleeve.
2. Discuss steps in handling and preparing fecal samples for examination.
3. Prepare fecal samples for examination and identify structures which may be present.
4. Explain the procedures used to collect urine samples and discuss which method is preferred for bacterial cultures.
5. Explain the risks of injury to the patient for each method of urine collection.
6. Explain why the morning sample is generally the most desirable, i.e., it is most concentrated and least affected by diet.
7. Explain how to collect urine through natural means.
8. Discuss steps involved in making a blood film slide and explain the proper staining techniques.
9. Define CBC test and explain the importance of the information obtained in the test.
10. Determine the steps involved in staining blood samples.
11. Stain a blood film and identify the cells and structures found in the film.
12. Discuss methods of heartworm testing including proper time frames for heartworm testing and preventatives.
13. Demonstrate a basic knowledge about different heartworm testing procedures, including occult, direct, Knott’s, etc.

P. HOSPITAL PROCEDURES

1. Select, change, and dispose of bedding used for specific breeds/species of housed animals.
2. Describe how to administer hydrotherapy according to a variety of animal species.
3. Discuss how “bicycling” the leg of a paraparetic animal or following FHO procedure will assist in the healing process.
4. Demonstrate the proper use of suture scissors in removal of sutures.
5. Demonstrate proper evaluation of the incision following the removal of sutures.
6. Demonstrate the steps taken to properly clean an open wound.
7. Explain the importance of proper dental care for a variety of animal species.
8. Explain methods of identifying livestock and demonstrate livestock identification procedures i.e. ear tagging, tattooing, ear notching, and micro-chipping.
9. Describe basic foot care for large animals i.e. equine, including routine preventive medicine and recognition of abnormal conditions.
10. Discuss the purpose of an enema and list the equipment needed to administer an enema.
11. Describe restraint techniques needed to administer an enema.
12. Discuss the neuter and spay process and its benefits to pets and pet owners.
13. List different types of bandaging materials and apply abdominal and leg bandages to a variety of animal species.
14. Explain the use of artificial insemination with domestic animals.
15. Assist in the process of semen collection, processing and evaluation.
16. Discuss the use of embryo transfer in domestic animals.
17. Discuss procedures used for pregnancy diagnosis in domestic animals.

**Q. SURGERY ASSISTANT**

1. Explain the use, operation and safety procedures in cleaning and sterilizing instruments using moist pressure autoclave, gas sterilization (ethylene oxide) and chemical sterilization.
2. Demonstrate the steps that are required to turn on the autoclave and to take out the autoclaved packs.
3. Explain the procedure of cold sterilization as per instruments, fluids, cleaning procedures, frequency, and limitations of sterility.
4. Perform a surgical assessment of a patient during surgery, including which parameters should be monitored and logged.
5. Explain the different planes of anesthesia to monitor and discuss the depth of anesthesia.
6. Explain why hypoventilation is dangerous for the patient
7. Show a basic knowledge about hypoglycemia and hypothermia as related to neonates.
8. Explain how to prepare bedding to the reduce risk of ulceration to pressure points.
9. Discuss the need to keep patient clean and dry, including emptying of bladder and removal of feces.
10. Demonstrate how to maintain muscle tone in patient’s legs after surgery.
11. Assist in performing common surgical skills i.e. bovine, porcine, ovine or caprine castration, dehorning, and docking.
12. Demonstrate CPR. procedures the uses of a crash cart.

**R. VETERINARY PHARMACY AND PHARMACOLOGY**

1. Demonstrate the proper method employed in calculating the precise volume, filling the syringe, and administering medication through non-vascular parenteral application.
2. Identify the correct syringe and needle on demand from the veterinarian.
3. Identify appropriate IM injection sites and demonstrate how to administer IM injections.
4. Demonstrate the proper method for administration of boluses, tablets, capsules, topical, pastes, and liquids to both small and large animals.
5. Demonstrate the ability to evaluate the condition, “check-in”, record, and store drugs received by the veterinary clinic or hospital.
6. Explain how to handle damaged or contaminated goods received in shipment.

**S. SAE and FFA Opportunities**

1. Plan and manage supervised agricultural experience programs.
2. Maintain records for animal related enterprises.
3. Analyze records of animal related enterprises.
4. Explore the opportunities available through the FFA.
5. Develop leadership skills related to veterinary medicine.
6. Participate in leadership activities related to veterinary medicine.