Arkansas CTE

Veterinary Science 2015 Veterinary Science: Grades 11, 12

Adopted 2015

Investigate Careers, Educational Requirements, along with Safety Procedures and Concepts in Veterinary Science

1.1 Investigate Careers in Veterinary Science

1. Assess careers in the profession of veterinary science 1.1.1
2. Analyze Roles in the Vet Clinic 1.1.2

1.2 Investigate Educational Requirements for Careers in Veterinary Science

1. Compare Veterinary Science Certifications that require less than a BS Degree. 1.2.1
2. Contrast Veterinary Science Certifications that require a BS Degree or more. 1.2.2

1.3 Apply Safety Concepts/Procedures in the Classroom, Lab and the Veterinarian Clinic

1. Assess common safety practices in the high school classroom/lab setting 1.3.1
2. Design proper safety practices within the Veterinarian Clinic 1.3.2
3. Recognize and avoid potential safety hazards. 1.3.3
4. Utilize proper safety precautions and procedures when working in the animal hospital (laboratory, kennel, surgery/prep area, treatment, microscope, and exam room). 1.3.4
5. Locate and demonstrates use of an eye wash solution or station 1.3.5
6. Locate first aid kit and fire extinguisher 1.3.6
7. Explain OSHA (Occupational Safety and Health Act) and its regulations pertaining to a veterinary practice, including sanitation, safety of employees and the employee's right to know of potential work place hazards through MSDS (Material Safety Data Sheets) and the written hazard communication plan 1.3.7

Demonstrate Methods of Animal Restraint

2.1 Demonstrate Livestock Restraint Methods

1. Evaluate the proper techniques for restraining and controlling livestock animals 2.1.1
2. Analyze various knot tying procedures 2.1.2

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3. Evaluate tools used when restraining livestock 2.1.3

2.2 Demonstrate Companion Animal Restraint Methods

1. Assess the proper procedure to restrain and control companion animals. 2.2.1
2. Describe tools used when restraining companion animals 2.2.2

Apply Assisting Techniques used in Exams and Treatments

3.1 Perform Physical Exams - Clinical

1. Evaluate the nine body systems observed in an exam 3.1.1
2. Apply concepts of tools and equipment used to perform a physical exam. 3.1.2

3.2 Perform First Aid - Clinical

1. Analyze proper first aid for a non-bleeding wound. 3.2.1
2. Apply the concepts of the proper technique for applying a wound bandage. 3.2.2
3. Demonstrate the proper technique for applying a pressure bandage. 3.2.3
4. Evaluate the proper precautions to take when applying a wound bandage. 3.2.4
5. Differentiate among the tools used in bandaging techniques.
Half circle suture needle.
Straight Littauer Stitch Scissors
Lister Bandage Scissors
Utility Bandage Scissors 3.2.5

3.3 Apply Concepts with Handling & Administering Medications-Clinical

1. Assess how to properly store various medications 3.3.1
2. Explain proper use of a syringe, drench gun and balling gun. 3.3.2
3. Differentiate among the tools used in handling and administering medications. 3.3.3

Research Laboratory Aids and Perform Examinations

4.1 Research Fecal, Blood & Urine Examinations

1. Recall the steps involved when performing a fecal flotation with a fecalyzer. 4.1.1
2. Describe the proper procedures used when performing a blood examination. 4.1.2
3. Evaluate the four parts of blood. (Red cells, white cells, platelets, plasma) 4.1.3
4. Perform a urinalysis. 4.1.4

4.2 Research Bacteriologic Tests

1. Evaluate the three general forms of bacteria. 4.2.1
2. Perform a Bacteriologic Test 4.2.2

4.3 Adhere to Radiology Safety Practices - Clinical

1. Assess the nine safety precautions when performing an xray. 4.3.1
2. Describe the steps for a machine setting for a radiograph. 4.3.2

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4.4 Practice Examination Procedures

1. Differentiate among the four "posting" instruments used. 4.4.1
2. Assess conditions that assist the veterinarian in examining the post mortem examinations. 4.4.2
3. Analyze the use of ultrasonography. 4.4.3

Sterilization and Disinfection

5.1 Investigate Sterilization Methods

1. Evaluate the five major methods of sterilization. 5.1.1
2. Assess the seven characteristics of an ideal antiseptic. 5.1.2

5.2 Demonstrate Disinfection Procedures

1. Evaluate the three most common types of disinfectants. (alcohol, chlorine and iodine) 5.2.1
2. Analyze the proper procedures for Sterilization and Disinfection 5.2.2

Demonstrate Surgical Assistance Procedures

6.1 Critique Surgical Instruments & Terminology

1. Assess the function of the following surgical instruments: thumb forceps, hemostats, operating scissors, ecraseur and scalpel. 6.1.1
2. Compare and Contrast surgical instruments and their functions. 6.1.2

6.2 Differentiate Surgical Preparation & Procedures

1. Investigate the preoperative preparation of the surgery room. 6.2.1
2. Analyze the postoperative procedures of the surgery room. 6.2.2

6.3 Formulate Proper Procedures for Anesthesia Preparation

1. Design a proper protocol to use concerning veterinary anesthesia. 6.3.1
2. Assess the four stages of anesthesia. 6.3.2
3. Evaluate an animal to determine the depth of anesthesia. 6.3.3

6.4 Apply Concepts for Preparing Hands & Field of Operation

1. Analyze the necessary actions to prepare for surgery. 6.4.1
2. Investigate the preparation of a surgical site. 6.4.2
3. Analyze proper procedures for putting on gloves and gowns. 6.4.3

Investigate Veterinary Medicine Regulations

7.1 Compare Control & Eradication Programs

1. Investigate the Brucellosis eradication program. 7.1.1
2. Investigate the control programs for rabies control program, pseudo rabies eradication control program, west nile encephalitis control program and the bovine trichomoniasis control program. 7.1.2

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7.2 Analyze Regulations

1. Analyze proper carcass disposal regulations and medical waste disposal regulations 7.2.1
2. Analyze proper animal welfare regulations and pesticide regulations. 7.2.2