

# Veterinary Science 2 (8089)

## Veterinary Science 2 (8089) VS2

### A Demonstrating Personal Qualities and Abilities VS2.1

- 1 Demonstrate creativity and innovation. VS2.1.1
  - 2 Demonstrate critical thinking and problem solving. VS2.1.2
  - 3 Demonstrate initiative and self-direction. VS2.1.3
  - 4 Demonstrate integrity. VS2.1.4
  - 5 Demonstrate work ethic. VS2.1.5
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### B Demonstrating Interpersonal Skills VS2.2

- 6 Demonstrate conflict-resolution skills. VS2.2.6
  - 7 Demonstrate listening and speaking skills. VS2.2.7
  - 8 Demonstrate respect for diversity. VS2.2.8
  - 9 Demonstrate customer service skills. VS2.2.9
  - 10 Collaborate with team members. VS2.2.10
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### C Demonstrating Professional Competencies VS2.3

- 11 Demonstrate big-picture thinking. VS2.3.11
- 12 Demonstrate career- and life-management skills. VS2.3.12
- 13 Demonstrate continuous learning and adaptability. VS2.3.13
- 14 Manage time and resources. VS2.3.14
- 15 Demonstrate information-literacy skills. VS2.3.15
- 16 Demonstrate an understanding of information security. VS2.3.16
- 17 Maintain working knowledge of current information-technology (IT) systems. VS2.3.17
- 18 Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. VS2.3.18
- 19 Apply mathematical skills to job-specific tasks. VS2.3.19
- 20 Demonstrate professionalism. VS2.3.20
- 21 Demonstrate reading and writing skills. VS2.3.21
- 22 Demonstrate workplace safety. VS2.3.22

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**D Examining All Aspects of an Industry** VS2.4

- 23 Examine aspects of planning within an industry/organization. VS2.4.23
- 24 Examine aspects of management within an industry/organization. VS2.4.24
- 25 Examine aspects of financial responsibility within an industry/organization. VS2.4.25
- 26 Examine technical and production skills required of workers within an industry/organization. VS2.4.26
- 27 Examine principles of technology that underlie an industry/organization. VS2.4.27
- 28 Examine labor issues related to an industry/organization. VS2.4.28
- 29 Examine community issues related to an industry/organization. VS2.4.29
- 30 Examine health, safety, and environmental issues related to an industry/organization. VS2.4.30

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**E Addressing Elements of Student Life** VS2.5

- 31 Identify the purposes and goals of the student organization. VS2.5.31
- 32 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult. VS2.5.32
- 33 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects. VS2.5.33
- 34 Identify Internet safety issues and procedures for complying with acceptable use standards. VS2.5.34

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**F Exploring Work-Based Learning** VS2.6

- 35 Identify the types of work-based learning (WBL) opportunities. VS2.6.35
- 36 Reflect on lessons learned during the WBL experience. VS2.6.36
- 37 Explore career opportunities related to the WBL experience. VS2.6.37
- 38 Participate in a WBL experience, when appropriate. VS2.6.38

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**G Exploring Leadership Opportunities through FFA** VS2.7

- 39 Identify the role of supervised agricultural experiences (SAEs) in agricultural education. VS2.7.39
- 40 Participate in an SAE. VS2.7.40
- 41 Identify the benefits and responsibilities of FFA membership. VS2.7.41
- 42 Describe leadership characteristics and opportunities as they relate to agriculture and FFA. VS2.7.42
- 43 Apply for an FFA degree and/or an agricultural proficiency award. VS2.7.43

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## **H Handling Exotic Animals** VS2.8

- 44 Explain husbandry of exotic animals. VS2.8.44
- 45 Describe how to lift and carry common exotic animals. VS2.8.45
- 46 Describe methods of moving nonaggressive common exotic animals into and out of cages or enclosures. VS2.8.46
- 47 Describe nutritional needs of, and feeding procedures for, exotic animals. VS2.8.47
- 48 Describe restraint procedures to facilitate veterinary examination of common exotic animals. VS2.8.48
- 49 Explain how to perform a partial water change and filter change on an aquarium. VS2.8.49

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## **I Understanding Laboratory Procedures** VS2.9

- 50 Explain precautionary safety measures and their importance in a work environment for veterinary staff, as well as the standards designated by OSHA. VS2.9.50
- 51 Explain the importance of performing and reporting all laboratory procedures with complete accuracy. VS2.9.51
- 52 Demonstrate the management of laboratory samples. VS2.9.52
- 53 Perform the procedure for preparing and staining blood films and cytologies. VS2.9.53
- 54 Perform a urinalysis. VS2.9.54
- 55 Describe common abnormalities seen in blood films, cytologies, and urinalysis. VS2.9.55

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**J Demonstrating Hospital Procedures** VS2.10

- 56 Identify veterinary instruments and equipment and their uses. VS2.10.56
- 57 Demonstrate methods for cleaning, disinfecting, and preparing surgical instruments. VS2.10.57
- 58 Describe restraint procedures to facilitate veterinary examination of animals. VS2.10.58
- 59 Demonstrate bandaging, splinting, and removal methods. VS2.10.59
- 60 Demonstrate method for applying a Robert Jones (RJ) bandage. VS2.10.60
- 61 Identify needle gauge sizes for animals, syringe types, and their uses. VS2.10.61
- 62 Demonstrate use of syringes. VS2.10.62
- 63 Explain dental care for animals. VS2.10.63
- 64 Explore spaying and neutering options. VS2.10.64
- 65 Demonstrate preparation of a patient for surgery. VS2.10.65
- 66 Demonstrate opening a sterile surgery pack. VS2.10.66
- 67 Prepare a surgical pack for sterilization. VS2.10.67
- 68 Demonstrate surgical site preparation, using required PPE. VS2.10.68
- 69 Demonstrate suture removal. VS2.10.69
- 70 Demonstrate administering an oral tablet or capsule. VS2.10.70

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**K Understand Disease and Disease Prevention** VS2.11

- 71 Explain the concept of disease. VS2.11.71
- 72 Describe the characteristics of disease-producing agents. VS2.11.72
- 73 Explain common animal diseases and their treatments. VS2.11.73
- 74 Describe the concept of immunity. VS2.11.74
- 75 Explain basic vaccine concepts. VS2.11.75
- 76 Identify common animal diseases that can be prevented by vaccination. VS2.11.76
- 77 Describe the factors involved in vaccination schedules. VS2.11.77
- 78 Explain concepts of animal quarantine and isolation. VS2.11.78
- 79 Describe common diseases and their clinical signs in companion animals. VS2.11.79
- 80 Describe treatments and preventive measures for common contagious diseases. VS2.11.80

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**L Understanding Parasitology** VS2.12

- 81 Explain concepts of parasitology. VS2.12.81
- 82 Identify parasites that commonly affect animals. VS2.12.82
- 83 Explain the life cycle of parasites and its relationship to parasitic infestation, detection, and treatment. VS2.12.83
- 84 Describe the clinical signs and symptoms of common parasitic infestations. VS2.12.84
- 85 Demonstrate standard diagnostic procedures for determining the presence of parasites. VS2.12.85
- 86 Describe preventive measures and common treatments for parasitic infestation. VS2.12.86

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**M Understanding Veterinary Pharmacology** VS2.13

- 87 Explain the concept of pharmacology. VS2.13.87
- 88 Describe regulatory agencies and professional organizations that focus on pharmacology used in the animal industry. VS2.13.88
- 89 Describe the categories of commonly used veterinary medications. VS2.13.89
- 90 Explain the schedules of controlled substances. VS2.13.90
- 91 Describe routes of medication administration. VS2.13.91
- 92 Describe factors that affect dose determination. VS2.13.92
- 93 Calculate dosages for weight-based medications. VS2.13.93
- 94 Interpret information on medication labels. VS2.13.94
- 95 Explain the importance of avoiding specific drug combinations. VS2.13.95
- 96 Demonstrate administration of oral and topical medications. VS2.13.96
- 97 Demonstrate administration of aural medications. VS2.13.97
- 98 Demonstrate administration of ophthalmic medications. VS2.13.98
- 99 Demonstrate filling a syringe for injection. VS2.13.99
- 100 Demonstrate administration of an intramuscular injection. VS2.13.100
- 101 Demonstrate administration of a subcutaneous injection. VS2.13.101
- 102 Demonstrate how to prepare and dispense medications that a client will administer at home. VS2.13.102

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## **N Performing Mathematical Operations (Posology)** VS2.14

- 103 Complete basic four-function operations with whole numbers, fractions, and decimals. VS2.14.103
- 104 Identify basic units of the commonly used systems of measurement. VS2.14.104
- 105 Perform conversions between common systems of measurement. VS2.14.105
- 106 Measure liquids. VS2.14.106
- 107 Dilute liquids, following label directions. VS2.14.107
- 108 Calculate amounts for dilutions. VS2.14.108
- 109 Solve word problems associated with veterinary medicine. VS2.14.109

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## **O Exploring First Aid on Animals** VS2.15

- 110 Explain the concept of first aid. VS2.15.110
- 111 Describe the components of an animal first-aid kit and the uses of each. VS2.15.111
- 112 Identify common situations and conditions requiring first aid. VS2.15.112
- 113 Describe how to prioritize common emergencies. VS2.15.113
- 114 Identify local resources for animal care. VS2.15.114

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## **P Maintaining Professional and Ethical Standards** VS2.16

- 115 Explain the relationship between animal welfare and the animal rights movement. VS2.16.115
- 116 Explain mental demands and personal coping mechanisms of various animal-care professionals. VS2.16.116
- 117 Describe ethical standards for veterinary practice. VS2.16.117

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## **Q Performing Office Functions** VS2.17

- 118 Explain the layout of the veterinary facility and rationale for the design. VS2.17.118
- 119 Describe use of current veterinary-specific computer software. VS2.17.119
- 120 Check client in and out. VS2.17.120
- 121 Maintain patient identification. VS2.17.121
- 122 Describe how to handle client inquiries about products or services. VS2.17.122

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## **R Exploring Emerging Technologies in Veterinary Sciences** VS2.18

- 123 Identify current and emerging technologies and advances in veterinary science. VS2.18.123
- 124 Explain the concept of biotechnology as it relates to veterinary science. VS2.18.124

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**S Understanding Genetics and Breeding** VS2.19

- 125 Explain the relationship among genes, chromosomes, and deoxyribonucleic acid (DNA). VS2.18.125
- 126 Explain the formation of gametes and zygotes and their relationship to inherited traits. VS2.18.126
- 127 Describe the use of genetics in selective breeding. VS2.18.127
- 128 Compare outcrossing/mixed breeding, line breeding, and inbreeding. VS2.18.128
- 129 Describe breeding cycles. VS2.18.129
- 130 Analyze the ethical aspects of breeding. VS2.19.130

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**T Working with Wildlife** VS2.20

- 131 Identify wildlife species common to the locale. VS2.20.131
- 132 Locate a wildlife rehabilitator for a given species. VS2.20.132
- 133 Describe provision of interim care to injured or orphaned wildlife. VS2.20.133
- 134 Explain legal issues affecting the care and handling of wildlife. VS2.20.134