

# Veterinary Science 1 (8088)

## Veterinary Science 1 (8088) VS1

### A Demonstrating Personal Qualities and Abilities VS1.1

- 1 Demonstrate creativity and innovation. VS1.1.1
  - 2 Demonstrate critical thinking and problem solving. VS1.1.2
  - 3 Demonstrate initiative and self-direction. VS1.1.3
  - 4 Demonstrate integrity. VS1.1.4
  - 5 Demonstrate work ethic. VS1.1.5
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### B Demonstrating Interpersonal Skills VS1.2

- 6 Demonstrate conflict-resolution skills. VS1.2.6
  - 7 Demonstrate listening and speaking skills. VS1.2.7
  - 8 Demonstrate respect for diversity. VS1.2.8
  - 9 Demonstrate customer service skills. VS1.2.9
  - 10 Collaborate with team members. VS1.2.10
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### C Demonstrating Professional Competencies VS1.3

- 11 Demonstrate big-picture thinking. VS1.3.11
- 12 Demonstrate career- and life-management skills. VS1.3.12
- 13 Demonstrate continuous learning and adaptability. VS1.3.13
- 14 Manage time and resources. VS1.3.14
- 15 Demonstrate information-literacy skills. VS1.3.15
- 16 Demonstrate an understanding of information security. VS1.3.16
- 17 Maintain working knowledge of current information-technology (IT) systems. VS1.3.17
- 18 Demonstrate proficiency with technologies, tools, and machines common to a specific occupation. VS1.3.18
- 19 Apply mathematical skills to job-specific tasks. VS1.3.19
- 20 Demonstrate professionalism. VS1.3.20
- 21 Demonstrate reading and writing skills. VS1.3.21
- 22 Demonstrate workplace safety. VS1.3.22

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**D Examining All Aspects of an Industry** VS1.4

- 23 Examine aspects of planning within an industry/organization. VS1.4.23
- 24 Examine aspects of management within an industry/organization. VS1.4.24
- 25 Examine aspects of financial responsibility within an industry/organization. VS1.4.25
- 26 Examine technical and production skills required of workers within an industry/organization. VS1.4.26
- 27 Examine principles of technology that underlie an industry/organization. VS1.4.27
- 28 Examine labor issues related to an industry/organization. VS1.4.28
- 29 Examine community issues related to an industry/organization. VS1.4.29
- 30 Examine health, safety, and environmental issues related to an industry/organization. VS1.4.30

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**E Addressing Elements of Student Life** VS1.5

- 31 Identify the purposes and goals of the student organization. VS1.5.31
- 32 Explain the benefits and responsibilities of membership in the student organization as a student and in professional/civic organizations as an adult. VS1.5.32
- 33 Demonstrate leadership skills through participation in student organization activities, such as meetings, programs, and projects. VS1.5.33
- 34 Identify Internet safety issues and procedures for complying with acceptable use standards. VS1.5.34

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**F Exploring Work-Based Learning** VS1.6

- 35 Identify the types of work-based learning (WBL) opportunities. VS1.6.35
- 36 Reflect on lessons learned during the WBL experience. VS1.6.36
- 37 Explore career opportunities related to the WBL experience. VS1.6.37
- 38 Participate in a WBL experience, when appropriate. VS1.6.38

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**G Exploring Leadership Opportunities through FFA** VS1.7

- 39 Identify the role of supervised agricultural experiences (SAEs) in agricultural education. VS1.7.39
- 40 Participate in an SAE. VS1.7.40
- 41 Identify the benefits and responsibilities of FFA membership. VS1.7.41
- 42 Describe leadership characteristics and opportunities as they relate to agriculture and FFA. VS1.7.42
- 43 Apply for an FFA degree and/or an agricultural proficiency award. VS1.7.43

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## **H Exploring Veterinary Science Careers** VS1.8

- 44 Explore animal related careers. VS1.8.44
- 45 Describe the importance of and opportunities for continuing education in the animal care field. VS1.8.45

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## **I Demonstrating Professional Conduct in the Animal Care Field** VS1.9

- 46 Identify the roles and responsibilities of professionals in the veterinary industry. VS1.9.46
- 47 Describe the functions of local, state, and national professional organizations in the field of animal care. VS1.9.47
- 48 Define prominent animal special interest groups. VS1.9.48
- 49 Identify legal and ethical issues in the veterinary medicine field. VS1.9.49
- 50 Describe the physical and mental demands and personal coping mechanisms of various animal-care professionals. VS1.9.50

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## **J Understanding Safety and Sanitation** VS1.10

- 51 Explain safety measures and their importance in animal care, and the Occupational Safety and Health Administration (OSHA) standards. VS1.10.51
- 52 Follow safety procedures for personal protection in the veterinary medicine industry. VS1.10.52
- 53 Follow laboratory safety procedures. VS1.10.53
- 54 Identify the importance of safety data sheets (SDS). VS1.10.54
- 55 Explain the role and regulations of OSHA and the Virginia Department of Labor and Industry (VDOLI) pertaining to veterinary science. VS1.10.55
- 56 Identify the physical, chemical, biological, and zoonotic hazards associated with the veterinary industry. VS1.10.56
- 57 Describe chemicals, including cleansers, disinfectants, and antiseptics commonly used in veterinary practice. VS1.10.57
- 58 Explain the concept of asepsis in veterinary work. VS1.10.58

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## **K Understanding Common Companion Animal Species and Breeds** VS1.11

- 59 Explain the origin of each companion animal species. VS1.11.59
- 60 Identify companion animal species. VS1.11.60
- 61 Identify characteristics of breeds within each species. VS1.11.61
- 62 Identify breeding methods and rearing techniques. VS1.11.62
- 63 Describe housing and maintenance of companion animals. VS1.11.63
- 64 Explain the suitability of a species and/or breed as a companion animal. VS1.11.64
- 65 Describe behavior patterns of companion animals. VS1.11.65
- 66 Interpret companion animal behaviors. VS1.11.66

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**L Understanding Common Livestock Species and Breeds** VS1.12

- 67 Explain the origin of common livestock species. VS1.12.67
- 68 Identify common livestock species. VS1.12.68
- 69 Identify the characteristics of common breeds within instructor-selected species. VS1.12.69
- 70 Identify breeding methods and rearing techniques of common livestock species. VS1.12.70
- 71 Describe housing and maintenance of livestock. VS1.12.71
- 72 Explain species and/or breed suitability of livestock. VS1.12.72
- 73 Describe common behavior patterns of livestock. VS1.12.73
- 74 Interpret common livestock animal behaviors. VS1.12.74

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**M Handling Animals** VS1.13

- 75 Identify unique handling considerations for species/breeds common in the veterinary field. VS1.13.75
- 76 Identify methods and equipment used for restraining animals. VS1.13.76
- 77 Demonstrate safe and humane restraint and handling methods used for veterinary procedures. VS1.13.77
- 78 Demonstrate respect for and safe treatment of animals. VS1.13.78
- 79 Describe safe and humane transport of an animal. VS1.13.79
- 80 Lift and carry a dog and cat. VS1.13.80
- 81 Move a nonaggressive dog and cat into and out of cage. VS1.13.81
- 82 Identify techniques for handling an aggressive dog and cat. VS1.13.82
- 83 Muzzle a dog and cat. VS1.13.83
- 84 Demonstrate common restraint techniques for dogs and cats. VS1.13.84
- 85 Describe the use of equipment for restraining a dog and cat. VS1.13.85
- 86 Describe how to move exotic species into and out of cages. VS1.13.86

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**N Demonstrate how to administer medication.** VS1.14

- 87 Demonstrate checking an animal for fleas and ticks. VS1.14.87
- 88 Explain tick removal and prevention. VS1.14.88
- 89 Prepare shampoos and creme rinses. VS1.14.89
- 90 Bathe an animal. VS1.14.90
- 91 Dry an animal. VS1.14.91
- 92 Use grooming tools and equipment. VS1.14.92
- 93 Demonstrate the trimming of an animal's nails. VS1.14.93
- 94 Brush and/or demat an animal's coat. VS1.14.94
- 95 Demonstrate the cleaning of an animal's ears. VS1.14.95
- 96 Clip an animal's coat with electric clippers. VS1.14.96
- 97 Perform final comb-out. VS1.14.97

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**O Performing Maintenance Functions** VS1.15

- 98 Explain how to clean, sanitize, disinfect, and store laundry. VS1.15.98
- 99 Clean and disinfect sink/tub. VS1.15.99
- 100 Clean and disinfect small animal quarters. VS1.15.100
- 101 Sanitize animal treatment area. VS1.15.101
- 102 Clean floors. VS1.15.102
- 103 Change trash liner. VS1.15.103
- 104 Describe the various types of disposal methods within a facility. VS1.15.104
- 105 Dispose of hazardous materials. VS1.15.105
- 106 Provide appropriate bedding. VS1.15.106
- 107 Provide appropriate types of bedding. VS1.15.107

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**P Understanding Veterinary Medical Terminology** VS1.16

- 108 Explain the formation of veterinary medical terminology. VS1.16.108
- 109 Identify basic veterinary medical terms and abbreviations. VS1.16.109
- 110 Use veterinary medical terminology. VS1.16.110
- 111 Describe anatomical and directional terminology. VS1.16.111

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**Q Understanding Anatomy and Physiology** VS1.17

- 112 Describe the relationship among cells, tissues, organs, and organ systems. VS1.17.112
- 113 Explain the anatomy and physiology of the skeletal system. VS1.17.113
- 114 Explain the anatomy and physiology of the muscular system. VS1.17.114
- 115 Explain the anatomy and physiology of the respiratory system. VS1.17.115
- 116 Explain the anatomy and physiology of the digestive system. VS1.17.116
- 117 Explain the anatomy and physiology of the nervous system. VS1.17.117
- 118 Explain the anatomy and physiology of the circulatory system. VS1.17.118
- 119 Explain the anatomy and physiology of the urinary system. VS1.17.119
- 120 Explain the anatomy and physiology of the male and female reproductive systems. VS1.17.120
- 121 Explain the anatomy and physiology of the integumentary system. VS1.17.121
- 122 Explore additional body systems. VS1.17.122

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**R Understanding Animal Nutrition** VS1.18

- 123 Identify the six basic nutrients and their functions in maintaining animal health. VS1.18.123
- 124 Calculate a dog's total daily energy requirement to maintain a healthy weight. VS1.18.124
- 125 Determine the body condition of an animal. VS1.18.125
- 126 Determine the nutritional value of animal feeds as they relate to dietary requirements of life stages. VS1.18.126
- 127 Identify marketing strategies of feed companies. VS1.18.127

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**S Performing Clinical Exams** VS1.19

- 128 Explain the importance of routine physical exams. VS1.19.128
- 129 Identify the characteristics of healthy vs. unhealthy animals. VS1.19.129
- 130 Describe the methods of assessing animal health. VS1.19.130
- 131 Demonstrate the use of diagnostic tools. VS1.19.131
- 132 Weigh and/or measure an animal. VS1.19.132
- 133 Demonstrate measuring and evaluating vital signs. VS1.19.133
- 134 Describe how to evaluate mucous membranes and capillary refill time (CRT). VS1.19.134
- 135 Determine a FAMACHA score for small ruminants. VS1.19.135

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**T Handling Death and Dying** VS1.20

- 136 Explain the purpose of euthanasia. VS1.20.136
- 137 Describe situations that may warrant euthanasia. VS1.20.137
- 138 Describe aspects and accepted procedures and methods of humane euthanasia. VS1.20.138
- 139 Explain how veterinary personnel can give support and assistance to a grieving client. VS1.20.139
- 140 Describe accepted methods of handling animal remains. VS1.20.140

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**U Performing Office Functions** VS1.21

- 141 Maintain veterinary records. VS1.21.141
- 142 Explain the inventory process for supplies. VS1.21.142
- 143 Explain equipment maintenance. VS1.21.143
- 144 Demonstrate professional etiquette for managing telephone calls and electronic communications. VS1.21.144
- 145 Schedule an appointment. VS1.21.145
- 146 Explain procedures for handling monetary transactions in the veterinary business. VS1.21.146