



**2017-2018**

# **Veterinary Assistant**

**OUTLINE**

## **DESCRIPTION:**

The Veterinary Assistant is a comprehensive veterinary science class. Instruction includes veterinary medical terminology, veterinary laws and ethics; personal and occupational safety; anatomy and physiology; clinical pathology, parasitology, and laboratory procedures. Students will learn how to conduct physical exams and documentation; diagnostic sampling, patient care and emergency nursing; and techniques for animal handling and restraint. Other topics include zoonosis and public health, radiation safety and diagnostic imaging; pharmacology, dentistry, preventative health programs, sanitation and disease control; euthanasia and client grief; animal nutrition, veterinary anesthesia, and surgical nursing. The Veterinary Assistant also provides extensive hands-on clinical experience in both a classroom setting and in a professional animal care facility (optional). Students exiting the program are prepared for employment as Veterinary Assistants. Activities in this course include work-based learning that connects students to industry and the local community.

***Veterinary Assistant has been UC a-g approved to meet the elective (“g”- Laboratory Science – Integrated Science) requirement.***

## **INFORMATION:**

- A. Pre-requisite: Biology (Recommended)
- B. Length: One year
- C. Sector: Agriculture & Natural Resources
- D. Pathway: Animal Science

| <b>O*Net SOC Codes</b> |  |
|------------------------|--|
| <b>Code #</b>          | <b>Title</b>   |
| 31.9096.00             | Veterinary Assistants and Laboratory Animal Caretakers |
| 39.2021.00             | Nonfarm Animal Caretaker                               |

| <b>Orientation</b>   |
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| <ul style="list-style-type: none"><li>A. Introduce the course and facilities.</li><li>B. Discuss the syllabus and major objectives.</li><li>C. Explain applicable classroom management procedures, the ROP Student Rules of Conduct, and any operational guidelines.</li><li>D. Review instructor/student expectations.</li><li>E. Explain enrollment and attendance requirements and procedures.</li><li>F. Review grading and student evaluation procedures.</li><li>G. Discuss the community classroom aspect of the program, if applicable.</li><li>H. Discuss the “next steps” related to additional education, training, and employment.</li><li>I. Review classroom safety, emergency, and disaster procedures.</li></ul>   |
| <b>1. Communication Skills</b>   |
| <ul style="list-style-type: none"><li>A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite.</li><li>B. Read and interpret written information and directions.</li><li>C. Practice various forms of written communication appropriate to the occupation.</li><li>D. Practice positive body language skills.</li><li>E. Practice professional verbal skills for resolving a conflict.</li><li>F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.</li></ul>  |
| <b>2. Interpersonal Skills</b>   |
| <ul style="list-style-type: none"><li>A. Demonstrate positive teamwork skills by contributing to a group effort.</li><li>B. Practice the importance of diversity awareness and sensitivity in the workplace.</li><li>C. Define sexual harassment in the workplace and identify the employee’s role and responsibility.</li><li>D. Practice participation skills.</li><li>E. Identify different personality types and strategies for working effectively with each type.</li><li>F. Practice business and social etiquette skills appropriate to the occupation.</li><li>G. Discuss the role of business and personal ethics in the decision-making process.</li><li>H. Evaluate various job-related scenarios and justify decisions based on ethics.</li><li>I. Demonstrate flexibility and adaptability in working with others.</li><li>J. Demonstrate the use of time management skills.</li></ul> |
| <b>3. Employability Skills</b>   |
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- A. Demonstrate appropriate attendance and punctuality practices for the classroom and worksite, if applicable.
- B. Prepare a resume, cover letter, and job application forms.
- C. Demonstrate interviewing techniques using appropriate tone and body language.
- D. Demonstrate appropriate dress and grooming standards in seeking employment and for the workplace.
- E. Identify strategies for employment retention.
- F. Analyze the impact of social networking on employability.
- G. Identify the need for continuing education, professional development, and professional growth in chosen field.
- H. Identify appropriate procedures for leaving a job.
- I. Identify sources of job information, including electronic sources.
- J. Review company policies and current trends in employee compatibility screening, drug screening, and background checks.

#### 4. Leadership

- A. Define leadership and identify the responsibilities, competencies, and behaviors of successful leaders.
- B. Work with peers to promote divergent and creative perspectives.
- C. Demonstrate how to organize and structure work, individually and in teams, for effective performance and the attainment of goals.
- D. Explain multiple approaches to conflict resolution and their appropriateness for a variety of situations in the workplace.
- E. Employ ethical behaviors and actions that positively influence others.
- F. Use a variety of means to positively impact the direction and actions of a team or organization.
- G. Analyze the short-term and long-term effects a leader's actions and attitudes can have on productivity, morale, and organizational culture.

#### 5. Personal and Occupational Safety

- A. Demonstrate procedures to be followed in the case of emergencies.
- B. Discuss ways to report a potential safety hazard to a supervisor.
- C. Identify and discuss cyber ethics, cyber safety, and cyber security.
- D. Apply personal safety practices to and from the job.
- E. Describe the procedure for reporting a work-related hazard or injury.
- F. Recognize the effects of substance abuse in the workplace.
- G. Describe the procedures for reporting a work-related injury.
- H. Explain importance of CAL-OSHA in relation to the American Animal Hospital Association's rules and regulations.
- I. Define and discuss ergonomics in relation to the working environment.
- J. Discuss the electrical hazards of working with electronic equipment.
- K. Recognize good housekeeping as a safety issue.

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| <b>6. Veterinary Paraprofessional Laws and Ethics</b>  |
| <ul style="list-style-type: none"><li>A. Differentiate between licensed and unlicensed positions in the veterinary field, and the role and responsibilities of the veterinary assistant.</li><li>B. Identify professional associations and employment opportunities for the veterinary assistant and related fields.</li><li>C. Recognize transferable skills from other occupations that relate to the veterinary assistant.</li><li>D. Discuss the California Veterinary Medical Practice Act as it pertains to veterinary assistants.</li><li>E. Identify the professional conduct and liabilities of the veterinarian, registered veterinary technician, and veterinary assistant.</li></ul>             |
| <b>7. Veterinary Medical Terminology</b>   |
| <ul style="list-style-type: none"><li>A. Identify the basic word building system used in veterinary medical terminology.</li><li>B. Define veterinary medical terms by breaking them into their component parts.</li><li>C. Use veterinary medical abbreviations and terms both in the classroom and professional setting.</li><li>D. Utilize word roots, combining forms, prefixes, suffixes, to analyze unfamiliar veterinary terms and phrases.</li><li>E. Identify and demonstrate pronunciation of medical terms.</li><li>F. Demonstrate proper spelling of veterinary medical terminology.</li></ul>   |
| <b>8. Human/Animal Psychology and Grief</b>  |
| <ul style="list-style-type: none"><li>A. Define euthanasia and describe the basic procedures for euthanizing pets.</li><li>B. Identify Pet-Facilitated therapies and interventions.</li><li>C. Recognize the five stages of grief and personal/client stress management techniques.</li><li>D. Identify various options for pet disposal.</li><li>E. Practice active listening and showing empathy skills.</li></ul>   |
| <b>9. Restraint, Handling and Observation Skills</b>   |
| <ul style="list-style-type: none"><li>A. Define species commonly treated in a small veterinary practice.</li><li>B. Identify the behaviors to observe for safely handling and restraining canines and felines.</li><li>C. Demonstrate specific physical restraint methods for both canine and feline patients.</li><li>D. Demonstrate restraint for different routes of administering medication.</li><li>E. Identify equipment used to restrain canines and felines.</li><li>F. Differentiate restraint methods for various veterinary medical procedures.</li><li>G. Describe the indications for use of chemical restraints.</li><li>H. Explain to clients the purpose and need for restraints.</li></ul> |

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| <b>10. Sanitation and Disease Control</b>   |
| <ul style="list-style-type: none"><li>A. Demonstrate the proper cleaning of animal cages and other surfaces to eliminate/reduce disease transmission.</li><li>B. Distinguish between disinfectants and antiseptics.</li><li>C. Demonstrate proper labeling, storage, and correct use of disinfectants and antiseptics.</li><li>D. Describe isolation procedures and correctly handle and dispose of contaminated waste.</li></ul>   |
| <b>11. Disease Transmission and Vaccinations</b>  |
| <ul style="list-style-type: none"><li>A. Describe the symptoms of the diseases for which canines and felines are routinely vaccinated.</li><li>B. Identify the sites of administration in canines and felines for administration of vaccines.</li><li>C. Identify procedures for proper storage and handling of vaccination medications.</li><li>D. Describe the immune system and its functions.</li><li>E. Explain the importance of maintaining a preventative health care schedule</li></ul>  |
| <b>12. Office Procedures and Medical Records</b>  |
| <ul style="list-style-type: none"><li>A. Enter correct and complete client and patient information in the medical record.</li><li>B. Implement proper patient identification procedures.</li><li>C. Identify basic office equipment and proper use.</li><li>D. Demonstrate professional phone technique, appointment scheduling, and appropriate document retrieval.</li><li>E. Market services and products for preventative care and health maintenance.</li><li>F. Practice basic cash handling and customer service skills.</li></ul> |
| <b>13. Physical Examination</b>   |
| <ul style="list-style-type: none"><li>A. Demonstrate proper technique for obtaining vital signs of an animal and compare results to normal values.</li><li>B. Correctly record detailed history and physical exam findings in a medical record using the SOAP format.</li><li>C. Recall normal values for temperature, pulse, and respiration.</li><li>D. Demonstrate proper positioning of the patient for physical examinations.</li></ul>  |
| <b>14. Basic Nutrition</b>  |
| <ul style="list-style-type: none"><li>A. List the six essential nutrients.</li><li>B. Compare and contrast nutrient content among prescription, premium, brand name and generic foods in relation to dietary needs.</li><li>C. Describe essential nutritional content and their functions.</li><li>D. Describe special diets based on need, age, disease, etc.</li></ul>  |

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| <b>15. Introduction to Basic Animal Anatomy and Physiology</b>   |
| <ul style="list-style-type: none"><li>A. Correctly use anatomical terminology to identify specific location and positions of body parts.</li><li>B. Identify the skeletal anatomy of companion animals.</li><li>C. Identify the topographical anatomy of companion animals.</li><li>D. Investigate the normal anatomy and physiology of the reproductive systems of animals, including genetics and breeding protocols.</li></ul>  |
| <b>16. Radiology</b>   |
| <ul style="list-style-type: none"><li>A. Demonstrate common restraint and positioning techniques for x-rays.</li><li>B. Explain basic safety precautions for using radiology equipment.</li><li>C. Identify proper use of radiology logs and proper labeling of radiographs</li></ul>  |
| <b>17. Laboratory Procedures</b>   |
| <ul style="list-style-type: none"><li>A. Obtain samples, perform diagnostic procedures, and analyze findings.</li><li>B. Identify laboratory equipment and practice their proper care and usage.</li><li>C. Perform fecal analysis, ear cytology, and FELV test.</li><li>D. Properly document test results.</li></ul>  |
| <b>18. Parasitology</b>  |
| <ul style="list-style-type: none"><li>A. Identify and differentiate between common endoparasites and ectoparasites in dogs and cats.</li><li>B. Explain the need for flea and tick protection.</li><li>C. Recognize signs and symptoms of diseases attributed to parasitism in various species.</li><li>D. Explain treatment and prevention methods of all common parasites.</li><li>E. Compare and contrast various flea and tick control products.</li></ul>   |
| <b>19. Veterinary Nursing Procedures</b>   |
| <ul style="list-style-type: none"><li>A. Explain the administration of medications using the "Five Rights."</li><li>B. Conduct basic nursing care skills including toenail trimming, ear cleaning, clipping fur for therapeutic reasons, cleansing, and bandaging.</li><li>C. Implement correct nursing and charting skills during the monitoring and/or treatment of a patient.</li><li>D. Identify specific veterinary equipment used in standard and critical care nursing.</li><li>E. Recognize signs and symptoms of a sick or injured animal.</li><li>F. Identify and select equipment used to administer fluid therapy.</li></ul> |

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| <b>20. Surgical Nursing and Anesthesia Procedures</b>   |
| <ul style="list-style-type: none"><li>A. Identify common anesthetic agents that are implemented in surgical veterinary procedures.</li><li>B. Identify the four stages of anesthesia.</li><li>C. Identify and differentiate between various common surgical instruments.</li><li>D. Demonstrate the proper use of an autoclave.</li><li>E. Inspect anesthesia machine and peripheral components in preparation for use.</li><li>F. Set-up and prepare a patient and necessary equipment for common veterinary surgical procedures.</li><li>G. Demonstrate the proper care and maintenance of surgical instruments.</li><li>H. Complete release forms for anesthesia and surgery patients.</li><li>I. Explain the pre-op procedures for common veterinary surgical procedures.</li></ul> |
| <b>21. Emergency Procedures</b>   |
| <ul style="list-style-type: none"><li>A. Identify the four stages of triage.</li><li>B. Define the steps to evaluate a patient in an emergency situation using "A CRASH PLAN."</li><li>C. Identify and retrieve various emergency equipment, supplies, and medications.</li><li>D. Identify what constitutes an emergency situation.</li><li>E. Follow emergency protocols for animal care and complete emergency forms.</li></ul>  |
| <b>22. Canine and Feline Dental Protocol</b>  |
| <ul style="list-style-type: none"><li>A. Describe basic dental anatomy and age determination.</li><li>B. Recognize common dental problems and diseases.</li><li>C. Identify basic instruments and equipment used for dental procedures.</li><li>D. Cite safety preventions to use when performing dental prophylaxis.</li><li>E. Educate clients about preventative dental care and the use of veterinary dental products.</li><li>F. List and describe dental cleaning options.</li></ul>  |
| <b>23. Introduction to Veterinary Pharmacology</b>  |
| <ul style="list-style-type: none"><li>A. Identify and classify controlled drugs.</li><li>B. Explain logging and storage procedures for medications.</li><li>C. Demonstrate knowledge of basic pharmacology, abbreviations, and the ability to interpret a written prescription.</li><li>D. Differentiate between regular medications and controlled substances.</li><li>E. Demonstrate basic math principles, including conversions from American standard system to the metric system.</li></ul>   |

- F. Practice common dosage calculations.
- G. Identify risks with obtaining medications online.

## 24. Computer Skills

- A. Demonstrate basic computer operations of practice management software.
- B. Demonstrate the ability to use computer skills to process, save data, and create presentations.
- C. Create, proofread, and edit various documents, reports, and medical information.



## Key Assignments

| Assignment  | Competencies  | Career Ready Practices            | Anchor Standards            | Pathway Standards                    | CCSS  |
|---|---|-----------------------------------|-----------------------------|--------------------------------------|---|
| 1. Students will participate in mock interviews that represent current industry practices (e.g., skills demonstrations, resumes, applications, portfolios, personal websites, etc.).          | 1A, B, D<br>3B, C, D, I, J  | 2<br>3<br>10                      | 2<br>3                      |                                      | LS 11-12.6<br>SLS 11-12.2   |
| 2. Students will interpret veterinary medical charts and case studies and translate the information for the lay person.   | 1A, B<br>7A - F   | 1<br>2<br>5<br>10                 | 1<br>2<br>4<br>5<br>7<br>8  | AD 6.0<br>HB 2.0<br>HB 5.0<br>HB 6.0 | LS 11-12.6<br>LS 11-12.1<br>LS 11-12.4<br>LS 11-12.6<br>RLST 11-12.4<br>SEP 4, 8<br>SLS 11-12.1<br>SLS 11-12.1d |
| 3. Students will research various veterinary products and provide client education.   | 1A –E<br>7F<br>8E<br>9H<br>11A, D, E<br>12D, E<br>14B, C, D<br>18B, C, D, E<br>22E<br>24C | 1<br>2<br>3<br>4<br>8<br>10<br>11 | 1<br>2<br>4<br>5<br>8<br>10 | AD 6.0                               | CC 2<br>LS 11-12.6<br>SLS 11-12.1d<br>SEP 1<br>SEP 4<br>WS 11-12.7<br>WS 11-12.9                                |
| 4. Students will create a patient information pamphlet that educates clients on common canine and feline infectious diseases, identifies appropriate preventive measures and treatment plans. | 1A, B, C<br>2A, D, J<br>7C, F<br>10D<br>11A, D, E   | 1<br>2<br>3<br>5<br>10            | 1<br>2<br>4<br>5<br>8       | AD 6.0<br>HB 5.0<br>HB 6.0<br>HB 9.0 | LS 11-12.1<br>LS 11-12.6<br>SLS 11-12.1d<br>SEP 4<br>SEP 8  |

# 2017-2018

| Assignment  | Competencies  | Career Ready Practices     | Anchor Standards       | Pathway Standards  | CCSS   |
|---|---|----------------------------|------------------------|--|--|
|   | 12E<br>24C  | 11                         | 10                     |  | WHSST 11-12.4<br>WS 11-12.2<br>WS 11-12.6<br>WS 11-12.7<br>WS 11-12.9  |
| 5. Students will complete a physical exam including necessary grooming on canine and feline patients utilizing proper equipment, restraint methods, and instruments. Students will document the data and compare with previous findings.                              | 1C,F<br>2A, D, I, J<br>5J, K<br>7C, E, F<br>9A - H<br>10A, B, C, D<br>11B, C<br>12A, B, D<br>13A, B, C, D<br>15A, C<br>17A, C, D<br>18A, C<br>19B, C, D, E<br>22B, C, D | 1<br>2<br>4<br>5<br>8<br>9 | 1<br>5<br>6<br>8<br>11 | AD 6.0<br>HB 2.0<br>HB 4.0<br>HB 5.0<br>HB 6.0<br>HB 7.0<br>HB 8.0 | RLST 11-12.3<br>RLST 11-12.4<br>SLS 11-12.1d<br>SEP 3<br>SEP 4<br>SEP 8<br>WS 11-12.2<br>WS 11-12.7<br>WS11-12.8 |
| 6. Students will reflect on how the loss of a pet personally affected them or someone close to them, and write a brief biographical or autobiographical narrative about the experience to share with the class. Students will also compose a eulogy or sympathy card. | 1A,C,D<br>2B,F,H<br>8C,D,E  | 2<br>4<br>7<br>10          | 1<br>2<br>5<br>8       | HB 5.0<br>HB 6.0   | LS 11-12.6<br>LS 11-12.1<br>LS 11-12.2<br>SLS 11-12.1d<br>WS 11-12.7   |
| 7. Students will research popular pet foods, analyze the nutritional information, and prepare a diet plan for various situations.   | 11D,E<br>12A,E<br>14A,B,C,D<br>19E  | 1<br>2<br>3<br>4           | 1<br>4<br>5<br>10      | AD 2.0   | SEP 3<br>SEP 4<br>SEP 7<br>WS 11-12.6  |

# 2017-2018

| Assignment   | Competencies   | Career Ready Practices           | Anchor Standards       | Pathway Standards                               | CCSS   |
|--|--|----------------------------------|------------------------|---|--|
|  | 22B,E  | 5<br>10<br>11                    |                        |   | WS 11-12.7<br>WS 11-12.9   |
| 8. Students will participate in a mock radiology lab and complete radiology logs.  | 1A,B,C,D,E,F<br>2A,D<br>5D,H,I,J,K<br>7C, F<br>9B,C,E,F,G<br>12A,B,D<br>16A,B,C              | 1<br>2<br>4<br>5<br>9<br>12      | 1<br>4<br>5<br>6<br>10 | HB 3.0<br>HB 5.0<br>HB 7.0<br>HB 8.0<br>HB 10.0 | LS 11-12.6<br>RLST 11-12.3<br>RLST 11-12.4<br>WS 11-12.6<br>WS 11-12.7 |
| 9. Student will perform appropriate laboratory procedures on canine and feline patients. Students will analyze and document the data on medical records. | 1B,C,F<br>2A,D<br>5J<br>7C, F<br>10D<br>12A,B,E<br>13B,D<br>15A<br>17A,B,C,D<br>18A,C<br>19E | 1<br>2<br>4<br>5<br>9<br>11      | 1<br>4<br>5<br>6<br>10 | AD 6.0<br>HB 3.0                                | RLST 11-12.3<br>SEP 4<br>SEP 8<br>WS 11-12.6<br>WS 11-12.7             |
| 10. Students will prepare a controlled drug and inventory logs and participate in a mock DEA audit.  | 1A,B,C,D,E,F<br>2A,D,G,H<br>5B,F,H,K<br>6E<br>7C,E,F<br>12A<br>23A,B,C,D                     | 1<br>2<br>4<br>5<br>7<br>8<br>11 | 1<br>6<br>7<br>8       | HB 3.0<br>HB 5.0                                | AAPR 1<br>ACED 3<br>AREI 1<br>AREI 3<br>FIF 6<br>LS 11-12.6<br>NQ 3    |

# 2017-2018

| Assignment  | Competencies  | Career Ready Practices            | Anchor Standards                 | Pathway Standards  | CCSS   |
|---|---|-----------------------------------|----------------------------------|--|--|
|   |   | 12                                |                                  |  | SIC 6<br>SID 1   |
| 11. Students will prepare and fill prescription orders.   | 1A,B,C,F<br>5K<br>7C,E,F<br>12A,B<br>23B,C,D,E,F  | 1<br>2<br>4<br>5<br>7<br>9        | 1<br>2<br>8<br>10<br>11          | HB 3.0<br>HB 5.0   | LS 11-12.2<br>LS 11-12.6<br>NQ 2<br>SLS 11-12.1d<br>WS 11-12.4<br>WS 11-12.6                         |
| 12. Students will research and demonstrate administering medication through various routes, addressing the pros and cons, safety issues, restraint issues, and time and effect of each route. | 1A,B,C,F<br>2A,D<br>7C,E,F<br>9A - F<br>19A,C,F   | 1<br>2<br>4<br>5<br>9<br>10<br>11 | 1<br>5<br>10<br>11               | HB 1.0<br>HB 2.0<br>HB 5.0<br>HB 8.0                     | LS 11-12.3<br>WHSST 11-12.2<br>WS 11-12.7<br>WS 11-12.4<br>WS 11-12.6                                |
| 13. Students will participate in a mock emergency lab where they will analyze and follow appropriate triage protocols.  | 1A -F<br>2A,B,D,E,F,H,I,<br>J<br>7C-F<br>8E<br>9A,B,C,E,F,H<br>10A,D<br>11A<br>12A,B,D,F<br>15A,B,C,D<br>18C<br>21A,B,C,D,E | 1<br>2<br>5<br>9<br>10            | 1<br>2<br>5<br>7<br>8<br>9<br>10 | AD 6.0<br>AD 9.0<br>HB 2.0<br>HB 4.0<br>HB 6.0<br>HB 7.0 | LS 11-12.6<br>RLST 11-12.3<br>SEP 1<br>SEP 4<br>SEP 7<br>SLS 11-12.1<br>SLS 11-12.1d<br>SLS 11-12.1b |
| 14. Students will complete client and patient profiles and  | 1B<br>5C,I,J,K  | 1<br>2                            | 4<br>8                           | HB 4.0<br>HB 5.0   | WS 11-12.6   |

# 2017-2018

| Assignment   | Competencies                                     | Career Ready Practices | Anchor Standards | Pathway Standards | CCSS |
|--|--|------------------------|------------------|-------------------|------|
| documentation utilizing a veterinary software program. | 7C,F<br>9A<br>12A,B,C,D<br>13B<br>15A<br>24A,B,C | 4<br>9                 |                  | HB 7.0            |      |

## Standards Assessed in this Program

### Career Ready Practices

1. Apply appropriate technical skills and academic knowledge.
2. Communicate clearly, effectively, and with reason.
3. Develop an education and career plan aligned to personal goals.
4. Apply technology to enhance productivity.
5. Utilize critical thinking to make sense of problems and persevere in solving them.
6. Practice personal health and understand financial well-being.
7. Act as a responsible citizen in the workplace and the community.
8. Model integrity, ethical leadership, and effective management.
9. Work productively in teams while integrating cultural/global competence.
10. Demonstrate creativity and innovation.
11. Employ valid and reliable research strategies.
12. Understand the environmental, social, and economic impacts of decisions.

### Anchor Standards

#### 2.0 Communications

- Acquire and use accurately sector terminology and protocols at the career and college readiness level for communicating effectively in oral, written, and multimedia formats.

#### 3.0 Career Planning and Management

- Integrate multiple sources of career information from diverse formats to make informed career decisions, solve problems, and manage personal career plans.

#### 4.0 Technology

- Use existing and emerging technology, to investigate, research, and produce products and services, including new information, as required in the sector workplace environment.

#### 5.0 Problem Solving and Critical Thinking

- Conduct short, as well as more sustained, research to create alternative solutions to answer a question or solve a problem unique to the sector using critical and creative thinking, logical reasoning, analysis, inquiry, and problem-solving techniques.

#### 6.0 Health and Safety

- Demonstrate health and safety procedures, regulations, and personal health practices and determine the meaning of symbols, key terms, and domain-specific words and phrases as related to the sector workplace environment.

#### 7.0 Responsibility and Flexibility

- Initiate, and participate in, a range of collaborations demonstrating behaviors that reflect personal and professional responsibility, flexibility, and respect in the sector workplace environment and community settings.

#### 8.0 Ethics and Legal Responsibilities

- Practice professional, ethical, and legal behavior, responding thoughtfully to diverse perspectives and resolving contradictions when possible, consistent with applicable laws, regulations, and organizational norms.

## **9.0 Leadership and Teamwork**

- Work with peers to promote divergent and creative perspectives, effective leadership, group dynamics, team and individual decision making, benefits of workforce diversity, and conflict resolution.

## **10.0 Technical Knowledge and Skills**

- Apply essential technical knowledge and skills common to all pathways in the sector following procedures when carrying out experiments or performing technical tasks.

## Pathway Standards

### **Agriculture and Natural Resources Sector - Animal Science Pathway**

- D2.0** Apply principles of animal nutrition to ensure the proper growth, development, reproduction, and economic production of animals.
- D6.0** Prescribe and implement a prevention treatment program for animal diseases, parasites, and other disorders.
- D9.0** Assess animal welfare concerns and management practices that support animal welfare.

### **Health Science & Medical Technology Sector - Patient Care Pathway**

- B1.0** Recognize the integrated systems approach to healthcare delivery services: prevention, diagnosis, pathology, and treatment.
- B2.0** Understand the basic structure and function of the human body and relate normal function to common disorders.
- B3.0** Know how to apply mathematical computations used in healthcare delivery system.
- B4.0** Recognize and practice components of an intake assessment relevant to patient care.
- B5.0** Know the definition, spelling, pronunciation, and use of appropriate terminology in the healthcare setting.
- B6.0** Communicate procedures and goals to patients using various communication strategies to respond to questions and concerns.
- B7.0** Apply observation techniques to detect changes in the health status of patients.
- B8.0** Demonstrate the principles of body mechanics as they apply to the positioning, transferring, and transporting of patients.
- B9.0** Implement wellness strategies for the prevention of injury and disease.
- B10.0** Comply with protocols and preventative health practices necessary to maintain a safe and healthy environment for patients, healthcare workers, coworkers, and self within the healthcare setting.

## Common Core State Standards

### **ENGLISH LANGUAGE ARTS**

#### **Language Standards**

- LS 11-12.6:** Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the (career and college) readiness level, demonstrate independence in gathering vocabulary knowledge when considering a word or phrase

important to comprehension or expression.

**LS 11-12.1:** Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

**LS 11-12.2:** Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

**LS 11-12.3:** Apply knowledge of language to understand how language functions in different contexts, to make effective choices for meaning or style, and to comprehend more fully when reading or listening.

**LS 11-12.4:** Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *grades 11-12 reading and content*, choosing flexibility from a range of strategies.

**LS 11-12.6:** Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.

## **Reading Standards for Literacy in Science and Technical Subjects**

**RLST 11-12.3:** Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks; analyze the specific results based on explanations in the text.

**RLST 11-12.4:** Determine the meaning of symbols, key term, and other domain-specific words and phrases as they are used in specific scientific or technical context relevant to grades 11-12 texts and topics.

## **Speaking and Listening Standards**

**SLS 11-12.1:** Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others ideas and expressing their own clearly and persuasively.

**SLS 11-12.1b:** Work with peers to promote civil, democratic discussions and decision-making, set clear goals and deadlines, and establish individual roles as needed.

**SLS 11-12.1d:** Respond thoughtfully to diverse perspectives, synthesize comments, claims and evidence made on all sides of an issue, resolve contradictions when possible, and determine what additional information or research is required to deepen the investigation or complete the work.

**SLS 11-12.2:** Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions, and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data.

## **Writing Standards for Literacy in History/Social Studies, Science, and Technical Subjects**

**WHSST 11-12.2:** Write informative/explanatory texts, including the narration of historical events, scientific procedures/experiments, or technical processes.

**WHSST 11-12.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

## **Writing Standards**

**WS 11-12.2:** Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

**WS 11-12.4:** Produce clear and coherent writing in which the development, organization, and style are appropriate to the task, purpose, and audience.

**WS 11-12.6:** Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback including new arguments and information.

**WS 11-12.7:** Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow or broaden the inquiry when appropriate, synthesize multiple sources on the subject, demonstrating understanding of the subject under



investigation.

**WS 11-12.8:** Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation including footnotes and endnotes.

**WS 11-12.9:** Draw evidence from literary or informational texts to support analysis, reflections, and research.

## **MATHEMATICS**

### **Algebra-Arithmetic with Polynomials and Rational Expressions**

**AAPR 1:** Understand that polynomials form a system analogous to the integers, namely, they are closed under the operations of addition, subtraction, and multiplication: add, subtract, and multiply polynomials, and divide polynomials by monomials. Solve problems in and out of context.

### **Algebra - Creating Equations**

**ACED 3:** Represent constraints by equations or inequalities, and by systems of equations and/or inequalities, and interpret solutions as viable or nonviable options in a modeling context. For example, represent inequalities describing nutritional and cost constraints on combinations of different foods.

### **Algebra-Reasoning with Equations and Inequalities**

**AREI 1:** Explain each step in solving a simple equation as following from the equality of numbers asserted at the previous step, starting from the assumption that the original equation has a solution. Construct a viable argument to justify a solution method.

**AREI 3:** Solve linear equations and inequalities in one variable, including equations with coefficients represented by letters.

### **Functions - Interpreting Functions**

**FIF 6:** Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.

### **Number and Quantity**

**NQ 2:** Define appropriate quantities for the purpose of descriptive modeling.

**NQ 3:** Choose a level of accuracy appropriate to limitations on measurement when reporting quantities.

### **Statistics and Probability - Making Inferences and Justify Conclusions**

**SIC 6:** Evaluate reports based on data.

### **Statistics and Probability - Interpreting Categorical and Quantitative Data**

**SID 1:** Represent data with plots on the real number line (dot plots, histograms, and box plots.)

## **SCIENCE**

### **Crosscutting Concept**

**CC 2:** Cause and effect: Mechanism and explanation

### **Scientific and Engineering Practices**

**SEP 1:** Asking questions (for science) and defining problems (for engineering)

**SEP 3:** Planning and carrying out investigations

**SEP 4:** Analyzing and interpreting data

**SEP 7:** Engaging in argument from evidence

**SEP 8:** Obtaining, evaluating, and communicating information.

## A-G Approved Key Assignments

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| 1. Students will read the California Veterinary Medical Practice Act as it relates to veterinary assistants and be able to differentiate between tasks allowed to be performed by DVM; RVT; and veterinary assistant. |
| 2. Students will define medical terminology words by defining component parts.  |
| 3. Students will prepare index cards with word parts to practice terminology.   |
| 4. Students will use medical dictionary to look up words and origins and practice pronunciation.  |
| 5. Students will reflect on how the loss of a pet personally affected them or someone close to them, and write a brief biographical or autobiographical narrative about the experience to share with the class.       |
| 6. Students will also compose a eulogy or sympathy card.  |
| 7. Students will chose the appropriate method of restraint (physical, chemical or mechanical) by analyzing various situations and conditions.   |
| 8. Students will practice calculating concentrations of a solute by using a concentrated disinfectant to demonstrate proper dilution ratios.  |
| 9. Students will list the common canine and feline infectious diseases and appropriate vaccines.  |
| 10. Students will explain the difference adjuvant, antigen and antibody in relation to vaccines and immune response.  |
| 11. Students will create a veterinary medical record.   |

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| 12. Students will demonstrate by role playing how to market services and products.  |
| 13. Student will obtain vital signs on canine and feline patients utilizing proper equipment and instruments and document the data on medical records to compare current findings with previous findings to draw conclusions. |
| 14. Students will list the six essential nutrients and describe how they work and why they are necessary.   |
| 15. Students will compose a radiology log.  |
| 16. Perform specific laboratory procedures using the correct and proper tools and instruments and accurately record results.  |
| 17. Students will develop a functional reference manual of basic laboratory procedures.   |
| 18. Students will analyze various nursing scenarios; identify the different sciences used in determining the correct course of treatment.   |
| 19. Students will demonstrate proper nursing procedures for the situation.  |
| 20. Students will chart all treatments performed and medications administered using appropriate specifications and notations.   |
| 21. Students will learn the parts and function of an anesthetic machine and the various anesthetics.  |
| 22. Students will become acutely aware of the need for proper maintenance of equipment and the variability of levels of anesthesia from one patient to another and identify possible causes of inconsistent results.          |
| 23. Students will use an anagram to explain, describe and instruct on the correct order and method of evaluating an emergency.  |

24. Students will list and describe the four stages of triage.

25. Students will develop an emergency procedures bulletin.

26. Students will calculate various dosages of medications based on the patient's weight and species.

27. Students will interpret written prescriptions and subsequently follow the correct steps to fill the above prescription.

28. Students will discuss word derivations.

29. Students will follow technical instructions in order to demonstrate the use of a specialized veterinary software program.

30. Students will create a complete owner/patient file, complete with history, vaccine certificates, prescription labels, and invoices.