



# Regional Occupational Program

## Veterinary Assistant 2026-2027

### COURSE DESCRIPTION

This course is designed to prepare students for entry-level employment as a Veterinary Assistant. Students develop foundation skills which can be utilized in veterinary clinics, kennels, laboratories, shelters, and pet stores. Topics include basic veterinary medical terminology, safety, animal behavior, handling and restraint techniques, nursing techniques, laboratory procedures, nutrition, sanitation, and client service. In addition to the classroom training, eligible students may receive work-place learning experience.

#### Course Information

Course Length: 1 Year  
 Prerequisite: Biology Recommended  
 Course Level: Capstone  
 UC: No  
 Articulated: No  
 Industry Cert.: No  
 Industry Sector: Agriculture and Natural Resources  
 Pathway: Animal Science  
 CALPADS: 7142

#### O\*Net SOC Codes

31-9096 Veterinary Assistant  
 39-2021 Animal Care Takers  
 29-2056 Veterinary Technologists and Technicians

#### Legend

CTE - PS CTE Pathway Standards  
 CRP Career Ready Practices  
 CTE - AS CTE Anchor Standards  
 CCSS Common Core State Standards  
 ISTE International Society for Technology in Education

## Veterinary Assistant

### Course Orientation

- a. Discuss objectives for this course, including competencies, teacher expectations, classroom policies, and procedures.
- b. Identify and discuss the acquisition of transferable skills (communication, collaboration, creativity, and critical thinking) and their importance to being college and career ready and for future personal and professional success.
- c. Review objectives, competencies, and course syllabus.
- d. Discuss student and teacher expectations, including behavior, class rules, appropriate dress, pre-course knowledge, and grading policies, including enrollment and attendance requirements and procedures, and classroom/school safety and disaster procedures.
- e. Discuss next steps in course sequence related to the career pathway, the need for reinforcement of basic skills, transferrable skills, and postsecondary and career options.
- f. Discuss the Big Six: Career Ready Essentials and the Standards for Career Ready Practice as they relate to this course, all aspects of the industry sector, and being college and career ready.

### Big Six: Career Ready Essentials

1. Effective Communication	CTE – PS	CRP	CTE - AS	CCSS	ISTE
<ol style="list-style-type: none"> <li>a. <b>Demonstrate effective verbal communication and conflict resolution skills.</b></li> <li>b. <b>Use the writing process to develop written communication with the appropriate tone, organization, and format for the identified audience.</b></li> <li>c. Explain the effect of interpersonal skills on one's ability to communicate effectively and develop relationships.</li> <li>d. Describe the impact of ineffective communication on business relationships.</li> <li>e. Analyze the impact of vocabulary, body language, and tone on verbal communication.</li> <li>f. Demonstrate active listening skills.</li> <li>g. Accurately interpret industry-specific written communication.</li> <li>h. Model responsible and effective use of various communication technologies.</li> <li>i. Identify valid and reliable digital reference and resource materials.</li> <li>j. Gather information from multiple digital sources to compare and contrast, synthesize, and summarize.</li> <li>k. Identify and use appropriate communication and collaboration technologies.</li> <li>l. Utilize technology to problem solve, accomplish tasks, and to produce or publish products.</li> </ol>		<u>1</u> <u>2</u> <u>11</u>	<u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u>  <u>SLS</u> <u>11-12.2</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u>  <u>WS</u> <u>11-12.7</u> <u>11-12.6</u>	<u>1b,c</u> <u>2c</u> <u>3b,c</u> <u>5c</u> <u>6b,c,d</u>
2. Collaboration, Creativity, and Critical Thinking	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ol style="list-style-type: none"> <li>a. <b>Demonstrate critical thinking skills for a variety of purposes and in different settings.</b></li> <li>b. <b>Collaborate to reach consensus on an identical objective through the sharing of knowledge, tasks, and learning.</b></li> <li>c. Discuss the importance of the critical thinking process to real-world applications.</li> </ol>		<u>2</u> <u>4</u> <u>5</u> <u>7</u>	<u>2</u> <u>3</u> <u>4</u> <u>5</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u>	<u>1c</u> <u>3c,d</u> <u>4a-d</u> <u>5c,d</u>

<ul style="list-style-type: none"> <li>d. Evaluate the impact of creative thinking on problem solving and innovation in real-world applications.</li> <li>e. Compile work that demonstrates the process used to (elaborate, refine, analyze) evaluate original ideas and maximize creative efforts.</li> <li>f. Apply divergent and convergent thinking to the development of an original idea or solution.</li> <li>g. Examine real-world limits to adopting ideas.</li> <li>h. Demonstrate creative thinking (preparation, insight, evaluation, elaboration, and communication) to create a new idea or concept.</li> <li>i. Assume shared responsibility for collaborative work, and value the individual contributions made by each team member.</li> <li>j. Evaluate evidence, arguments, claims, and beliefs to identify connections.</li> <li>k. Identify bias, prejudice, propaganda, self-deception, distortion, and misinformation.</li> <li>l. Produce intellectual, informational, or material products that serve an authentic purpose.</li> <li>m. Work effectively and respectfully with those from diverse backgrounds or cultures.</li> <li>n. Demonstrate respect, trust, commitment, and the ability to compromise in collaborative projects.</li> </ul>		<u>9</u> <u>10</u> <u>11</u>	<u>7</u> <u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u>  <u>WS</u> <u>11-12.7</u> <u>11-12.6</u>	<u>6c</u> <u>7b,c,d</u>
<b>3. Leaders and Teams: Roles and Responsibilities</b>	CTE – PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Determine the individual and team members' roles and responsibilities.</b></li> <li>b. <b>Demonstrate leadership skills and qualities (i.e., reliability, negotiation skills, initiative, positive reinforcement, recognition of others' efforts, problem-solving skills, conflict resolution, and delegation).</b></li> <li>c. Explain the importance of technical, social, and communication skills to team success.</li> <li>d. Compare and contrast leadership styles and their effectiveness in various situations.</li> <li>e. Organize and delegate responsibilities in a team setting to encourage ideas, perspectives, and contributions from all team members.</li> <li>f. Develop a strong sense of team identity by brainstorming solutions, volunteering, assisting others, practicing respect and courtesy, and taking initiative.</li> <li>g. Examine situations in which a follower becomes the leader.</li> <li>h. Describe twenty-first-century skills required across all occupations.</li> <li>i. Identify and discuss the characteristics of a successful team (i.e., leadership, cooperation, and effective decision-making).</li> <li>j. Leverage social and cultural differences to increase innovation and quality of work.</li> </ul>		<u>7</u> <u>8</u> <u>9</u>	<u>3</u> <u>7</u> <u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>11-12.2</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u>  <u>WS</u> <u>11-12.6</u>	<u>7a,c</u>
<b>4. Legal, Ethical, and Environmental Considerations</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Demonstrate industry specific ethical and legal practices.</b></li> <li>b. <b>Identify eco-friendly industry specific practices and resources.</b></li> <li>c. Identify local, state, and federal regulatory agencies, entities, laws, and regulations.</li> </ul>		<u>5</u> <u>7</u> <u>8</u>	<u>3</u> <u>5</u> <u>7</u>	<u>WS</u> <u>11-12.6</u> <u>11-12.7</u>	<u>2a,b</u> <u>3a,b</u>

<ul style="list-style-type: none"> <li>d. Identify discrimination based on race, nationality, religion, gender, age, disability, or sexual orientation.</li> <li>e. Summarize the ethical and legal implications of workplace discrimination and harassment.</li> <li>f. Explain the concept of corporate citizenship.</li> <li>g. Examine an employer's role in protecting the health and welfare of employees, the community, and the environment.</li> <li>h. Analyze current environmental laws and regulations and their impact on industry.</li> <li>i. Compare and contrast both society's and industry's impact on the environment.</li> </ul>		<u>12</u>	<u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u>	<u>5c</u> <u>6c</u>
<b>5. Personal Growth and Career Planning</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Demonstrate continued personal development and growth.</b></li> <li>b. <b>Develop and manage a personal growth and career plan.</b></li> <li>c. Explain the relationship between sound financial habits and financial security.</li> <li>d. Create and manage a personal financial plan.</li> <li>e. Demonstrate initiative in achieving personal and professional goals.</li> <li>f. Apply time management strategies to meet deadlines.</li> <li>g. Demonstrate a growth mindset through flexibility and a positive attitude.</li> <li>h. Select and demonstrate appropriate job-search and retention techniques.</li> <li>i. Demonstrate strategies to prepare for employment.</li> <li>j. Demonstrate interpersonal skills appropriate for the workplace.</li> <li>k. Elaborate on the importance of perseverance to personal and professional success.</li> <li>l. Discover personal career interests, aptitudes, and skills.</li> </ul>		<u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>6</u>	<u>2</u> <u>3</u> <u>4</u> <u>7</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u>  <u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u>  <u>WS</u> <u>11-12.6</u>	<u>1a</u> <u>3a,c</u> <u>4d</u> <u>6a,d</u> <u>7b</u>
<b>6. Workplace Safety and Personal Wellness</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Demonstrate proper industry specific safe work practices to prevent injury or illness.</b></li> <li>b. <b>Assess the potential impact of goal setting on personal and professional success.</b></li> <li>c. Describe the role of security and emergency procedures in workplace safety.</li> <li>d. Describe the effect of preventative measures on emergencies in the workplace.</li> <li>e. Identify and describe the causes, prevention, and treatment of common accidents.</li> <li>f. Identify local, state, and federal agencies that regulate workplace safety.</li> <li>g. Explain the role of the California Occupational Safety and Health Administration (Cal-OSHA) and the Environmental Protection Agency (EPA).</li> <li>h. Discuss the basics of system operations.</li> <li>i. Demonstrate the proper use of personal protective equipment (PPE).</li> <li>j. Explain the purpose of and accurately interpret a Safety Data Sheet (SDS).</li> <li>k. Identify hazardous materials and chemicals.</li> <li>l. Demonstrate proper procedures to respond to work-related accidents and injuries.</li> <li>m. Describe how ergonomics, housekeeping, and maintenance are related to accidents and injuries.</li> </ul>		<u>2</u> <u>5</u> <u>6</u> <u>8</u> <u>12</u>	<u>2</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>10</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u>  <u>WS</u> <u>11-12.7</u> <u>11-12.6</u>  <u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u>	<u>1a,d</u> <u>2a,d</u> <u>5b</u>

<ul style="list-style-type: none"> <li>n. Demonstrate cyber ethics, cyber safety, and cybersecurity.</li> <li>o. Assess the potential impact of preventative physical and mental health measures on workplace safety.</li> </ul>					
<b>Veterinary Assistant Units of Instruction</b>					
<b>7. The Veterinary Paraprofessional, Laws, and Ethics</b>	CTE-PS	CRP	CTE- AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Identify the local, state, and federal laws governing animal health care professionals, relating to the role and responsibilities of the assistant.</b></li> <li>b. <b>Differentiate between licensed and unlicensed positions in the veterinary field.</b></li> <li>c. Compare and contrast the guiding principles of veterinary medicine.</li> <li>d. Identify the professional role and responsibilities of the veterinary assistant.</li> <li>e. Identify professional associations and employment opportunities for the veterinary assistant and related fields.</li> <li>f. Recognize transferable skills from other occupations that relate to the veterinary assistant.</li> <li>g. Explain the difference between licensed and unlicensed positions in the veterinary field.</li> <li>h. Discuss the California Veterinary Medical Practice Act as it pertains to veterinary assistants.</li> <li>i. Identify the professional conduct and liabilities of the veterinarian, registered veterinary technician, and veterinary assistant.</li> <li>j. Understand the local, state, and federal laws governing animal health care professionals, including laws related to animal welfare.</li> </ul>	<a href="#">D9.3</a>	<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">LS</a></u> <u><a href="#">9-10</a></u>  <u><a href="#">WS</a></u> <u><a href="#">11-12.7</a></u>	
<b>8. Veterinary Medical Terminology</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Demonstrate the ability to use veterinary medical terminology in the classroom and in a professional setting.</b></li> <li>b. Identify the basic word building system used in veterinary medical terminology.</li> <li>c. Utilize word roots, combining forms, prefixed, suffices, to analyze unfamiliar veterinary terms and phrases.</li> <li>d. Identify basic rules for building, defining, and spelling of veterinary medical terms.</li> <li>e. Identify and demonstrate pronunciation of veterinary medical terms.</li> <li>f. Demonstrate the ability to use medical veterinary abbreviations and terms both in the classroom and professional setting.</li> </ul>		<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">LS</a></u> <u><a href="#">9-10</a></u>  <u><a href="#">WS</a></u> <u><a href="#">11-12.7</a></u>	
<b>9. Office Procedures and Medical Records</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Demonstrate the ability to enter, correct and complete patient information in the veterinary medical record.</b></li> <li>b. Identify basic office equipment and proper use.</li> <li>c. Demonstrate professional phone technique, appointment scheduling, and appropriate document retrieval.</li> </ul>		<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">1</a></u> <u><a href="#">2</a></u> <u><a href="#">5</a></u> <u><a href="#">11</a></u>	<u><a href="#">LS</a></u> <u><a href="#">9-10</a></u>  <u><a href="#">WS</a></u> <u><a href="#">11-12.7</a></u>	

<ul style="list-style-type: none"> <li>d. Demonstrate the ability to enter correct and complete client and patient information in the medical record.</li> <li>e. Identify and describe the documents that belong in a medical record.</li> <li>f. Explain how findings from a physical exam are used to write a case history.</li> <li>g. Implement proper patient identification and record filing procedures.</li> <li>h. Market services and products for preventive care and health maintenance.</li> <li>i. Demonstrate basic cash handling, credit and debit card acceptance and customer service skills.</li> </ul>					
<b>10. Introduction to Basic Animal Anatomy and Physiology</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Using correct veterinary medical terminology, identify the basic anatomy and physiology of animals.</b></li> <li>b. Identify the topographic anatomy of companion animals.</li> <li>c. Correctly use anatomical terminology to identify specific location and positions of body parts.</li> <li>d. Identify the skeletal anatomy of companion animals.</li> <li>e. Compare the anatomy of large and small animals.</li> <li>f. List the special handling requirements or needs of large animals.</li> </ul>	<a href="#">D3.0</a> <a href="#">D11.2</a>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<a href="#">LS</a> <a href="#">9-10</a>  <a href="#">WS</a> <a href="#">11-12.7</a>	
<b>11. Basic Nutrition</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Describe the nutritional requirements for common animal species.</b></li> <li>b. Discuss nutritional requirements of common species.</li> <li>c. Describe essential nutrients and their functions.</li> <li>d. Identify and differentiate between commercial over-the-counter generic, grocery, and premium animal diets including nutritional supplements.</li> </ul>	<a href="#">D2.0</a> <a href="#">D2.4</a>	<u>1</u> <u>2</u> <u>11</u>	<u>1</u> <u>2</u> <u>11</u>	<a href="#">LS</a> <a href="#">9-10</a>	
<b>12. Animal Behavior</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Identify common restraint methods for various situations and medical procedures.</b></li> <li>b. Distinguish between various types of behaviors of specific animal species.</li> <li>c. Interpret different animal responses to humans and environmental stimuli.</li> <li>d. Demonstrate specific physical restraint methods for both canine and feline patients.</li> <li>e. Demonstrate restraint for different routes of administering medication.</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. Identify equipment used to restrain specific species.</li> </ul>	<a href="#">D1.3</a> <a href="#">D6.1</a> <a href="#">D6.2</a>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<a href="#">LS</a> <a href="#">9-10</a>  <a href="#">WS</a> <a href="#">11-12.7</a>	
<b>13. Physical Examination</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Report and record detailed history and physical findings in an industry acceptable medical record format.</b></li> </ul>	<a href="#">C9.0</a>	<u>1</u> <u>2</u>	<u>1</u> <u>2</u>	<a href="#">LS</a> <a href="#">9-10</a>	

<ul style="list-style-type: none"> <li>b. Demonstrate proper positioning of patients for physical examination.</li> <li>c. Demonstrate proper technique for obtaining vital signs of an animal, including normal values.</li> <li>d. Differentiate by organ system normal and abnormal findings during a physical exam.</li> <li>e. Recall normal values for temperature, pulse, and respiration.</li> <li>f. Report and record detailed history and physical exam findings in a medical record.</li> </ul>		<u>5</u> <u>11</u>	<u>5</u> <u>11</u>	<u>WS</u> <u>11-12.7</u>	
<b>14. Lab Procedures</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Demonstrate the proper collection, labeling, and interpretation of results for basic laboratory tests and procedures.</b></li> <li>b. Identify and practice the care and proper use of laboratory equipment and disposal.</li> <li>c. Demonstrate the proper collection and labeling and disposal of laboratory specimens.</li> <li>d. Set up, read, and interpret results for basic laboratory tests and procedures.</li> <li>e. Properly document test results.</li> </ul>		<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u>  <u>WS</u> <u>11-12.7</u>	
<b>15. Sanitation and Disease Control</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Demonstrate the proper use of disinfectants and antiseptics, handling and disposal of contaminated waste, and cleaning animal cages and surfaces.</b></li> <li>b. Distinguish between disinfectants and antiseptics.</li> <li>c. Demonstrate proper labeling and correct use of disinfectants and antiseptics.</li> <li>d. Demonstrate the proper cleaning of animal cages and other surfaces.</li> <li>e. Describe isolation procedures, and correctly handle and dispose of contaminated waste.</li> </ul>	<u>D8.0</u>	<u>1</u> <u>2</u> <u>11</u>	<u>1</u> <u>2</u> <u>11</u>	<u>LS</u> <u>9-10</u>	
<b>16. Parasitology</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Explain the treatment and prevention methods of all common parasites.</b></li> <li>b. <b>Explain the need for flea and tick protection.</b></li> <li>c. Identify and differentiate between common endoparasites and ectoparasites in various species.</li> <li>d. Recognize signs and symptoms of diseases attributed to parasitism in various species.</li> <li>e. Explain the treatment and prevention methods of all common parasites.</li> <li>f. Compare and contrast flea and tick control products.</li> </ul>	<u>D6.0</u> <u>D6.1</u> <u>D6.3</u> <u>D6.4</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u>  <u>WS</u> <u>11-12.7</u>	
<b>17. Disease Transmission and Vaccinations</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
<ul style="list-style-type: none"> <li>a. <b>Describe the functions of the immune system and the importance of vaccinations and preventative health care of animals.</b></li> <li>b. Describe the immune system and its functions.</li> <li>c. Explain the importance of maintaining a preventative health care schedule.</li> <li>d. Describe the symptoms of the diseases for which animals are routinely vaccinated.</li> </ul>	<u>D6.0</u> <u>D6.3</u> <u>D6.4</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u>  <u>WS</u> <u>11-12.7</u>	

e. Indicate the proper location to give a vaccine in common animal species, and the correct way to store and care for vaccinations.					
f. Demonstrate sanitation techniques to eliminate/reduce disease transmission.					
<b>18. Radiology</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
a. Describe the appropriate use of basic veterinary radiology equipment and safety precautions.	<a href="#">D1.3</a>	<a href="#">1</a> <a href="#">2</a>	<a href="#">1</a> <a href="#">2</a>	<a href="#">LS</a> <a href="#">9-10</a>	
b. Identify basic veterinary radiology equipment, proper use, and safety precautions.		<a href="#">5</a>	<a href="#">5</a>		
c. Explain the importance of a correctly positioned and restrained patient.		<a href="#">6</a>	<a href="#">6</a>	<a href="#">WS</a>	
d. Identify proper use of radiology logs and proper labeling of radiographs.		<a href="#">11</a>	<a href="#">11</a>	<a href="#">11-12.7</a>  <a href="#">RSTS</a> <a href="#">9-10</a> <a href="#">11-12.4</a>	
<b>19. Veterinary Nursing Procedures</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
a. Identify specific veterinary equipment used in standard and critical care nursing.	<a href="#">D1.3</a>	<a href="#">1</a>	<a href="#">1</a>	<a href="#">LS</a>	
b. Recognize signs and symptoms of a sick or injured animal.	<a href="#">D6.2</a>	<a href="#">2</a>	<a href="#">2</a>	<a href="#">9-10</a>	
c. Identify and select equipment used to administer fluid therapy.	<a href="#">D6.3</a>	<a href="#">5</a>	<a href="#">5</a>		
d. Explain the administration of medications using the "Five Rights."		<a href="#">8</a>	<a href="#">8</a>	<a href="#">WS</a>	
e. Implement correct nursing and charting skills during the monitoring and/or treatment of a patient.		<a href="#">11</a>	<a href="#">11</a>	<a href="#">11-12.7</a>	
f. Conduct basic nursing care skills including toenail trimming, ear cleaning, clipping fur for therapeutic reasons, cleansing and bandaging.				<a href="#">SLS</a> <a href="#">11-12.1d</a>	
<b>20. Surgical Nursing and Anesthesia Procedures</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
a. Identify common anesthetic agents and discuss the stages and possible complications of anesthesia.		<a href="#">1</a> <a href="#">2</a>	<a href="#">1</a> <a href="#">2</a>	<a href="#">LS</a> <a href="#">9-10</a>	
b. Identify common anesthetic agents that are implemented in surgical veterinary procedures.		<a href="#">5</a>	<a href="#">5</a>		
c. Inspect anesthesia machine and peripheral components in preparation for use.		<a href="#">11</a>	<a href="#">11</a>	<a href="#">WS</a>	
d. Discuss the four stages and possible complications of anesthesia.				<a href="#">11-12.7</a>	
e. Set up and prepare a patient/equipment for common veterinary surgical procedures.					
f. Identify and differentiate between various common surgical instruments.					
g. Demonstrate the proper care, maintenance, and sterilization procedures for surgical instruments.					
h. Demonstrate the proper use of an autoclave and its components.					
<b>21. Emergency Procedures</b>	<b>CTE - PS</b>	<b>CRP</b>	<b>CTE - AS</b>	<b>CCSS</b>	<b>ISTE</b>
a. Demonstrate the ability to recognize and respond appropriately to emergency situations.	<a href="#">D9.1</a>	<a href="#">1</a>	<a href="#">1</a>	<a href="#">LS</a>	
b. Follow emergency protocols for animal care and complete emergency forms.		<a href="#">2</a>	<a href="#">2</a>	<a href="#">9-10</a>	

<ul style="list-style-type: none"> <li>c. Identify the four stages of triage.</li> <li>d. Demonstrate the ability to recognize emergency situations.</li> <li>e. Identify and retrieve various emergency equipment, supplies, and medications.</li> <li>f. Recall the three basic rescue skills of CPR: Airway, Breathing, and Circulation (ABCs).</li> <li>g. Demonstrate CPR techniques using a mannequin dog.</li> </ul>		<u>5</u> <u>6</u> <u>11</u>	<u>5</u> <u>6</u> <u>11</u>	<u>WS</u> <u>11-12.7</u>  <u>RSTS</u> <u>9-10</u> <u>11-12.4</u>	
<b>22. Human/Animal Psychology and Grief</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Discuss the factors affecting human attitudes toward animals.</b></li> <li>b. Differentiate the factors affecting human attitude toward animals.</li> <li>c. Identify Pet-Facilitated therapies and interventions.</li> <li>d. Discuss specific causes for pet overpopulation and the importance, procedures, and process of Euthanasia.</li> <li>e. Recognize the five stages of grief, and personal/client stress management techniques.</li> <li>f. Identify various options for pet disposal.</li> </ul>		<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u>  <u>WS</u> <u>11-12.7</u>  <u>SLS</u> <u>11-12.1d</u>	
<b>23. Canine and Feline Dental Protocol</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Identify common dental problems and diseases and discuss the procedures to maintain good dental health.</b></li> <li>b. Describe basic dental anatomy and age determination.</li> <li>c. Recognize common dental problems and diseases.</li> <li>d. Identify basic instruments and equipment used for dental procedures.</li> <li>e. Cite safety preventions to use when performing dental procedures.</li> <li>f. Educate clients about preventative dental care and the use of veterinary dental products.</li> </ul>		<u>1</u> <u>2</u> <u>11</u>	<u>1</u> <u>2</u> <u>11</u>	<u>LS</u> <u>9-10</u>	
<b>24. Introduction to Veterinary Pharmacology</b>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> <li>a. <b>Identify and differentiate between common veterinary drug classifications, generic group names, brand names, and their uses.</b></li> <li>b. Demonstrate knowledge of basic pharmacology, abbreviations, and the ability to interpret a written prescription.</li> <li>c. Differentiate between regular medications and controlled substances.</li> <li>d. Demonstrate basic math principles including conversions from American standard system to the metric system.</li> </ul>		<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u>  <u>WS</u> <u>11-12.7</u>	

## Standards Alignment

The curricula have been aligned with the CTE Model Curriculum Standards released in 2013. Each industry sector was updated to meet the increased rigor and relevancy requirements of the Common Core State Standards. The curriculum also includes the new Standards for Career Ready Practices.

### Standards for Career Ready Practice

1. *Apply appropriate technical skills and academic knowledge.*
2. *Communicate clearly, effectively, and with reason.*
3. *Develop an education and career plan aligned with 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 literacy.*
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 and global competence.*
10. *Demonstrate creativity and innovation.*
11. *Employ valid and reliable research strategies.*
12. *Understand the environmental, social, and economic impacts of decisions.*

## CTE Anchor Standards—Common Core English Language Arts Alignment

### *Anchor Standard 1: Academics*

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the industry sector alignment matrix for identification of standards. Note: alignment listed within each sector.

### *Anchor Standard 2: Communications*

Language Standard: Acquire and accurately use 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 9-10, 11-12.6

### *Anchor Standard 3: Career Planning and Management*

Speaking and Listening Standard: 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. SLS 11-12.2

### *Anchor Standard 4: Technology*

Writing Standard: 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.

### *Anchor Standard 5: Problem Solving and Critical Thinking*

Writing Standard: 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, and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. WS 11-12.7

### *Anchor Standard 6: Health and Safety*

Reading Standards for Science and Technical Subjects: Determine the meaning of symbols, keywords, and other domain-specific words and phrases as they are used in a specific scientific or technical context. RSTS 9-10, 11-12.4

### *Anchor Standard 7: Responsibility and Flexibility*

Speaking and Listening Standard: 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 9-10, 11-12.1

### *Anchor Standard 8: Ethics and Legal Responsibilities*

Speaking and Listening Standard: 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 11-12.1d

### *Anchor Standard 9: Leadership and Teamwork*

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

### *Anchor Standard 10: Technical Knowledge and Skills*

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

### *Anchor Standard 11: Demonstration and Application*

Demonstrate and apply the knowledge and skills contained in the industry-sector anchor standards, pathway standards, and performance indicators in the classroom, laboratory, and workplace settings, and the career technical student organization. Note: no alignment evident for this standard. WS 11-12.6

## CTE Model Curriculum Standards—Industry Sectors and Pathways

### *Agriculture and Natural Resources*

#### *D. Animal Science Pathway*

- D1.3 *Interpret animal behaviors and execute protocols for safe handling of animals.*
- D2.0 *Apply principles of animal nutrition to ensure the proper growth, development, reproduction, and economic production of animals.*
- D2.4 *Distinguish how animal nutrition is affected by the digestive, endocrine, and circulatory systems.*
- D3.0 *Apply principles of comparative anatomy and physiology to uses within various animal systems.*
- D6.0 *Prescribe and implement a prevention treatment program for animal diseases, parasites, and other disorders.*
- D6.1 *Evaluate the signs of normal health in contrast to illness and disease.*
- D6.2 *Analyze the importance of animal behavior in diagnosing animal sickness and disease.*
- D6.3 *Research common pathogens, vectors, and hosts that cause disease in animals.*
- D6.4 *Evaluate preventative measures for controlling and limiting the spread of diseases, parasites, and disorders among animals.*
- D8.0 *Explain challenges associated with animal waste management.*
- D9.0 *Assess animal welfare concerns and management practices that support animal welfare.*
- D9.1 *Evaluate the early warning signs of animal distress and how to rectify the problem.*
- D9.3 *Summarize federal and state animal welfare laws and regulations, such as those dealing with abandoned and neglected animals, animal fighting, euthanasia, and medical research.*
- D11.2 *Explore the unique nutrition, health, and habitat requirements for specialty animals.*

## ISTE Standards for Students

**1. Empowered Learner-** Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

- a) Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process itself to improve learning outcomes.
- b) Students build networks and customize their learning environments in ways that support the learning process.
- c) Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways
- d) Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.

**2. Digital Citizen-** Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.

- a) Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.
- b) Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.
- c) Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.
- d) Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.

**3. Knowledge Constructor-** Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.

- a) Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.
- b) Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.
- c) Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.
- d) Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.

**4. Innovative Designer-** Students use a variety of technologies within a design process to identify and solve problems creating new, useful, or imaginative solutions.

- a) Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.
- b) Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.
- c) Students develop, test, and refine prototypes as part of a cyclical design process.
- d) Students exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems.

**5. Computational Thinker-** Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

- a) Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.
- b) Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.
- c) Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.
- d) Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.

**6. Creative Communicator-** Students communicate clearly and express themselves creatively for a variety of purposes using platforms, tools, styles, formats, and digital media appropriate for their goals.

a) Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

b) Students create original works or responsibly repurpose or remix digital resources into new creations.

c) Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.

d) Students publish or present content that customizes the message and medium for their intended audiences.

**7. Global Collaborator-** Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

a) Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

b) Students use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.

c) Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

d) Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.