COLTON REDLANDS YUCAIPA
REGIONAL OCCUPATIONAL PROGRAM

2023-2024

Veterinary Assistant 2

COURSE OUTLINE - UC

DESCRIPTION:

The Veterinary Assistant 2 course is designed to build on the knowledge of anatomy, physiology and diseases obtained in the Veterinary Assistant 1 course and to prepare students for an entry-level position in the veterinary field and post-secondary education in animal science. This course provides applied instruction in veterinary office procedures, safety precautions, clinical pathology, parasitology, radiology, pharmacology, dental protocol, veterinary anesthesia and surgical nursing. Additionally, students will learn medical records management, physical exams and documentation, diagnostic sampling, patient care and emergency nursing, radiation safety and diagnostic imaging, euthanasia and client grief, and genetics. Activities in this course include extensive hands-on clinical experience in a classroom setting and professional animal care facility (optional), as well as work-based learning that connects students to industry and the local community.

INFORMATION:

PRE-REQUISITE:	Veterinary Assistant 1
LENGTH:	One Year
SECTOR:	Agriculture and Natural Resources
PATHWAY:	Animal Science
ARTICULATED:	No
UC A-G APPROVAL:	Yes: College-Preparatory Elective (G) / Science – Integrated Science

O*NET SOC CODES:

31-9096.00	Veterinary Assistants and Laboratory Animal Caretakers
39-2021.00	Nonfarm Animal Caretaker

Orientation

A. Introduce the course and facilities.
B. Discuss the syllabus and major objectives.
C. Explain applicable classroom management procedures, the ROP Student Rules of Conduct, and any operational guidelines.
D. Review instructor/student expectations.
E. Explain enrollment and attendance requirements and procedures.
F. Review grading and student evaluation procedures.
G. Discuss the community classroom aspect of the program, if applicable.
H. Discuss the “next steps” related to additional education, training, and employment.
I. Review classroom safety, emergency, and disaster procedures.

1. Communication Skills

A. Demonstrate positive verbal communication skills using appropriate vocabulary, demeanor, and vocal tone in the classroom and/or worksite.
B. Read and interpret written information and directions.
C. Practice various forms of written communication appropriate to the occupation.
D. Practice positive body language skills.
E. Practice professional verbal skills for resolving a conflict.
F. Demonstrate active listening skills including techniques for checking for understanding, and for obtaining clarification of directions.

2. Interpersonal Skills

A. Demonstrate positive teamwork skills by contributing to a group effort.
B. Practice the importance of diversity awareness and sensitivity in the workplace.
C. Define sexual harassment in the workplace and identify the employee’s role and responsibility.
D. Practice participation skills.
E. Identify different personality types and strategies for working effectively with each type.
F. Practice business and social etiquette skills appropriate to the occupation.
G. Discuss the role of business and personal ethics in the decision-making process.
H. Evaluate various job-related scenarios and justify decisions based on ethics.
I. Demonstrate flexibility and adaptability in working with others.
J. Demonstrate the use of time management skills.

3. Employability Skills

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.

6. Veterinary Paraprofessionals, Laws and Ethics

A. Evaluate the impact of personal character traits, such as trust, respect, and responsibility on career success of a veterinary assistant.
B. Describe the role and duties of the veterinary assistant, veterinary technicians and related fields.
C. Identify the professional ethics, conduct and liabilities of the veterinarian, registered veterinary assistant and veterinary technician.
D. Discuss the California Veterinary Medical Practice Act (CVMPA) as it pertains to veterinary assistants.
E. Review the National Association of Veterinary Technicians in America (NAVTA).
F. Identify professional associations, membership, and continuing education requirements.

7. Physical Exam

A. Review anatomical terminology to identify specific location and positions of body parts.
B. Identify process for cleaning and preparing examination room.
C. Demonstrate proper technique for obtaining vital signs of an animal and compare results to normal values.
D. Correctly record detailed history and physical exam findings in a medical record using the SOAP format.
E. Recall normal values for temperature, pulse, and respiration.
F. Demonstrate proper positioning of the patient for physical examinations.

8. Safety

A. Recognize proper classroom safety procedures for safe handling and care of animals.
B. Identify mechanical hazards, biohazards (bite/scratch/zoonosis) and chemical hazards.
C. Describe important safety techniques and protocols for hazardous medical materials at the veterinary office.
D. Discuss the use of isolation wards for animals whose owners test positive for a contagious disease such as COVID-19.

9. Medical Records Management & Computer Skills

A. Correctly assembly of history and physical exam findings in a medical record using the SOAP format.
B. Enter correct and complete patient information in the medical record.
C. Demonstrate the ability to file and retrieve documents alphabetically and numerically.
D. Identify appropriate guidelines for releasing records or information.
E. Demonstrate basic computer operations of a practice management software.
F. Demonstrate the ability to use computer skills to create, proofread, edit, and save various documents.

10. Office and Hospital Procedures

A. Identify basic office equipment and proper use.
B. Implement proper patient identification procedures.
C. Demonstrate professional phone technique and appointment scheduling.
D. Describe paper work requirements for rabies and health certificates.
E. Practice professional customer service and communication (including active listening) skills for greeting and helping patients.
F. Document conversations with clients and place in medical record.
G. Describe procedure for checking-in, admitting and discharging patient
H. Market services and products for preventative care and health maintenance.
I. Practice basic cash handling and accounting skills.
J. Outline inventory and restocking procedures.

11. Emergency Procedures

A. Identify the four stages of triage.
B. Identify what constitutes an emergency and conduct regular emergency drills.
C. Define the steps to evaluate a patient in an emergency using “A CRASH PLAN.”
D. Identify and retrieve various emergency equipment, supplies, and medications.
E. Follow emergency protocols for animal care and complete emergency forms.

12. Canine and Feline Dental Protocol

A. Describe basic dental anatomy and age determination.
B. Recognize common dental problems and diseases.
C. Identify basic instruments and equipment used for dental procedures.
D. Cite safety precautions to use when performing dental prophy.
E. Educate clients about preventative dental care and the use of veterinary dental products.

13. Parasitology

A. Identify and differentiate between common endoparasites and ectoparasites in dogs and cats.
B. Explain the need for flea and tick protection.
C. Recognize signs and symptoms of diseases attributed to parasitism in various species.
D. Explain treatment and prevention methods of all common parasites.
E. Compare and contrast various flea and tick control products.

14. Laboratory Procedures

A. Review laboratory equipment and associated costs.
B. Practice the proper care, maintenance and usage of laboratory equipment.
C. Obtain samples, perform diagnostic procedures, and analyze findings.
D. Perform fecal analysis, ear cytology, and FELV test.
E. Evaluate urine and blood to measure health of the animal.
F. Correctly use a refractometer.
G. Properly document test results.

15. Radiology & Ultrasound

A. Demonstrate common restraint and positioning techniques for x-rays and ultrasound imaging.
B. Explain basic techniques and safety precautions for using radiology and ultrasound equipment.
C. Describe basic mechanisms in producing x-ray, ultrasound, and endoscopy imaging.
D. Demonstrate proper labeling of radiographs logs.

16. Veterinary Pharmacology

A. Identify and classify common and controlled drugs.
B. Differentiate between regular medications and controlled substances.
C. Explain dispensing, recordkeeping and storage procedures for regular and controlled medications.
D. Demonstrate knowledge of basic pharmacology, abbreviations, and the ability to interpret a written prescription.
E. Demonstrate basic math principles, including conversions from American standard system to the metric system.
F. Practice common dosage calculations and cleaning of pill cutter.
G. Identify risks with obtaining medications from third party online pharmacies.

17. Veterinary Nursing Procedures

A. Explain the administration of medications using the “Five Rights.”
B. Conduct basic nursing care skills including bathing, toenail trimming, ear cleaning, clipping fur for therapeutic reasons, cleansing, anal expression and de-matting.
C. Demonstrate bandaging and wound care including ears and tails.
D. Explain the healing of lacerations.
E. Implement correct nursing and charting skills during the monitoring and/or treatment of a patient.
F. Identify specific veterinary equipment used in standard and critical care nursing.
G. Recognize signs and symptoms of a sick or injured animal.
H. Identify and select equipment used to administer fluid therapy.
I. Evaluate early warning signs of animal distress and describe how to rectify the problem.

18. Surgery and Anesthesia Procedures

A. Identify common anesthetic agents that are implemented in surgical veterinary procedures.
B. Define the four stages of anesthesia.
C. Inspect anesthesia machine and peripheral components in preparation for use.
D. Complete release forms for anesthesia and surgery patients.
E. Describe operating room sanitation and care protocol.
F. Identify, differentiate, and properly care for common surgical instruments.
G. Set-up for surgery, including preparation of instruments, medication, and animal cages for after surgery.
H. Properly position patient for common veterinary surgical procedures and check vitals before sedation.
I. Demonstrate the proper use and maintenance of an autoclave.
J. Explain the pre-op procedures for common veterinary surgical procedures.
K. Demonstrate the proper storage and donning of gowns and gloves and understand properly scrubbed hands.
L. Demonstrating suturing, the various types of sutures and removal of sutures.

19. Human/Animal Psychology and Grief

A. Define euthanasia and describe the basic procedures for euthanizing pets (including healthy animals).
B. Follow process for verification and consent of pet owner.
C. Identify Pet-Facilitated therapies and interventions.
D. Recognize the five stages of grief and personal/client stress management techniques.
E. Identify various options for pet disposal.
F. Practice active listening and empathy skills.
G. Summarize animal welfare regulations dealing with abandoned and neglected animals.
H. Outline laws pertaining to animal medical research and cruelty.

20. Genetics & Transgenic Animals in Agriculture

A. Define genetics and heredity.
B. Describe the classifications of the animal kingdom.
C. List common genetic diseases and disorders.
D. Explain genetic tests prior to certification of breeding dogs.
E. Discuss transgenic animals in agriculture.
F. Identify current issues and ethics for genetic engineering of animals for food.

21. Career Readiness / Work Experience

A. Leadership skills.

B. Employability skills including resume writing and interview techniques.
C. Interpersonal and ethics skills.
D. Personal and occupational safety.
E. FFA activities including Supervised Agricultural Experience (SAE) https://saeforall.org/ / AET https://www.calaged.org/SAE
F. Veterinary Assistant externship (if available).

22. Portfolio Design

A. Develop personal marketing and computer skills by refining your digital portfolio for post-secondary and employment acceptance.
B. Compile best samples of original works and documents for a variety of purposes, which shows a progression in the acquisition of knowledge and/or skills.
C. Demonstrate knowledge of competencies through journaling or summary of selected works or documents.
D. Revise professional resume and cover letter to align with skills and objective statements of the relevant industry.
E. Dress professionally and practice interviewing techniques using portfolio materials.
F. Assemble industry and employability documents (resume, cover letter, certifications, recommendation letters, etc.).
G. Create a “leave behind” book or folder.
H. Display portfolio materials during a fair, community event, competition, or professional panel review.
I. Evaluate and utilize feedback to improve portfolio.

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, leadership, resumes, applications, portfolios, personal websites, etc.).	1A, B, D 3B, C, D, I, J 4A, B, E, G 21-22	2 3 10	2 3		LS 11-12.6 SLS 11-12.2
2. Students will read the California Veterinary Medical Practice Act as it relates to veterinary assistants and be able to differentiate between tasks performed by Doctor Veterinary Medicine, Registered Vet Technician, and a Veterinary Assistant.	1B, C 6D,B,E,F	1 2 3 8 11	2 3 4 7 8 10	D9.0 B1.0 B10.0	LS 11-12.2 LS 11-12.6 WHSST 11-12.2 WHSST 11-12.2 WS 11-12.2
3. In groups, students will complete a physical exam including necessary grooming on canine and feline patients utilizing proper equipment, restraint methods, and instruments. Student will obtain vital signs on canine and feline patients and document the data on medical records to compare current findings with previous findings to draw conclusions.	1C,D, F 2A, D, I, J 5J, K 7A-E 9B,C,E	1 2 4 5 8 9	5 6 8 11	D6.0 D9.0 B2.0 B4.0 B5.0 B6.0 B7.0 B8.0	RLST 11-12.3 RLST 11-12.4 SLS 11-12.1d SEP 3 SEP 4 SEP 8 WS 11-12.2 WS 11-12.7 WS11-12.8

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
4. Group of students will receive case studies regarding the care of a pet. Then, each team will collaborate with another team with a different case study, whereby each student will role-play the client calling the veterinary facility, and vice versa. Each student will develop a SOAP plan and create a patient medical record profile utilizing a veterinary software program students will create in google.	1A-F 9A-F 10B,C,G	1 2 4 9	2 6 7 9 10	B4.0 B5.0 B6.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b
5. Based on a case study, students will create a complete owner/patient file complete with history, vaccine certificates, labs, prescriptions and invoices. Students will role-play conversations with clients about patient check in, admission and discharge; and interpret veterinary medical charts and case studies information for the layperson. Each student will practice accounting skills, medical terminology, customer service, communication and problem-solving skills.	1A, B, C, D, F 2A, D, H, I, J 10B-G 17E	1 2 4 5 9 10 11	2 - 9 10	D6 B2.0 B3.0 B4.0 B5.0 B6.0	LS 11-12.6 LS 11-12.1 LS 11-12.4 LS 11-12.6 RLST 11-12.3-12.4 SEP 4, 8 SLS 11-12.1; 12.1d WS 11-12.6-12.7
6. Students will research various veterinary products offered by local veterinary clinics and create a pamphlet for client education. Students will offer the pamphlets to the local veterinary clinic.	1B,C 10 H, J	1 2 4 5 8 10 11	2 4 5 8 10	D6.0	CC 2 LS 11-12.6 SLS 11-12.1d SEP 1 SEP 4 WS 11-12.7 WS 11-12.9

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
7. Students will use an anagram to explain, describe and instruct on the correct order and method of evaluating an emergency. Students will then participate in a mock emergency lab by analyzing and following appropriate triage protocols. In groups, students will develop an emergency procedures bulletin that instructs the correct order and method of evaluating an emergency, and describe the four stages of triage. Students will give the emergency procedures bulletin to a local animal control agency.	1A -F 2A,B,D,E,F,H,I, J 4B,C,F 5A 11A-F	1 2 5 9 10 11 12	2 5 7 8 9 10	B4.0 B5.0 B6.0 B7.0 B8.0 B9.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b
8. An RVT (Registered Vet Technician) will be invited to demonstrate how to properly remove ticks from a dog / cat and discuss common parasite control methods for small and large animal pets.	1B, E 3A,D,F,G 13A-E	1 2 5 9 10 11 12	2 5 7 8 9 10	D6.0 D9.0 B7.0 B9.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b
9. Students will visit a vet clinic and identify common safety and precautionary measures in the clinic. Students will write a 2-3 page paper about the types of safety and precautionary measures in a vet clinic and hazards these measures are designed to prevent.	1A,B,C,F 2A,D 8A-C	1 2 4 5 9 10 11	5 10 11	B1.0 B2.0 B5.0 B10.0	LS 11-12.3 WHSST 11-12.2 WS 11-12.7 WS 11-12.4 WS 11-12.6
10. Students will perform appropriate laboratory procedures on canine and feline patients using the proper tools and instruments and accurately record results. Students will analyze and document the data in medical records. Then in groups, students will develop a functional reference manual of basic laboratory procedures to be given to a local vet. clinic.	1B,C,F 2A,D 5J 14B-F	1 2 4 5 9 11	2 4 5 6 10	D6.0 B3.0 B5.0 B7.0 B8.0 B10.0	LS 11-12.2 LS 11-12.6 RLST 11-12.3 SEP 4 SEP 8 WS 11-12.6 WS 11-12.7

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
11. Students will participate in a mock radiology lab and complete radiology logs.	1A,B,C,D,E,F 2A,D 5D,H,I,J,K 15A-D	1 2 4 5 9 12	4 5 6 10	B3.0 B5.0 B7.0 B8.0 B10.0	LS 11-12.6 RLST 11-12.3 RLST 11-12.4 WS 11-12.6 WS 11-12.7
12. Students will prepare a controlled drug and inventory logs and participate in a mock DEA audit.	1A,B,C,D,E,F 2A,D,G,H 5B,F,H,K 6E 16A,B,C	1 2 4 5 7 8 11 12	1 6 7 8	B3.0 B5.0	AAPR 1 ACED 3 AREI 1 AREI 3 FIF 6 LS 11-12.6 NQ 3 SIC 6 SID 1
13. Students will interpret written prescriptions and subsequently follow the correct steps to fill prescription orders. Students will receive a prescription amount and calculate various dosages of medications based on the patient's weight and species, and count the number of pills using a pill counter and a variety of dried beans as medication with different sizes and set dosages. Students will clean the pill cutter.	1A,B,C,F 5K 16B-F	1 2 4 5 7 9	2 8 10 11	D6.0 B1.0 B3.0 B5.0	LS 11-12.2 LS 11-12.6 NQ 2 SLS 11-12.1d WS 11-12.4 WS 11-12.6
14. Students will research different types of lacerations and compare healing rates in a 2-3 page paper.	1B,C,F 2A,D 17B,C,D	1 2 3 8 11	2 3 4 7 8 10	B1.0 B5.0 B7.0	LS 11-12.2 LS 11-12.6 WHSST 11-12.2 WHSST 11-12.2 WS 11-12.2

Assignment	Competencies	Career Ready Practices	Anchor Standards	Pathway Standards	CCSS
15. Students will lift gums of animals to check oral health while practicing safety precautions, then identify and point to tooth positions in a canine and feline skull.	1C,D,F 2A,D,I,J 3B,D 7A 12A,D	1 5 9 12	5 6 7 9 10	D6.0 B2.0 B10.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b
16. Students will participate in a mock preparation for surgery and suturing lab. In groups, students will demonstrate preparing a room and patient for surgery, assembling a surgical pack, donning gown and gloves, scrubbing and monitoring animals under anesthesia. Students will practice suturing using a simple interrupted suture technique and removing the sutures.	1CDF 2A,D,I,J 5K 18B-L	1 2 5 9 10 11 12	2 5 7 8 9 10	B6.0 B7.0 B8.0 B10.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b
17. 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. In pairs, students will compose a eulogy or sympathy card for each other incorporating parts of the autobiographical narrative.	1A,C,D 2B,F,H 19A,C,D,F	2 4 7 10	2 4 8	B5.0 B6.0	LS 11-12.6 LS 11-12.1 LS 11-12.2 SLS 11-12.1d WS 11-12.7
18. Students will visit an Equine Center or dairy farm (or a guest speaker) will discuss the breeding of horses or cows and current or future transgenic applications for horses or cattle. Students will write a 4-6 research paper on current issues and ethics for genetic engineering of animals for food and present to class.	1B, E 3A,D,F,G 20A,C,E,F	1 2 5 9 10 11 12	2 5 7 8 9 10	D5.0 D9.0 D10.0 B5.0	LS 11-12.6 RLST 11-12.3 SEP 1; SEP 4; SEP 7 SLS 11-12.1 SLS 11-12.1d SLS 11-12.1b WHSST 11-12.2 WS 11-12.7 WS 11-12.4 WS 11-12.6

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.
D3.0 Apply principles of comparative anatomy and physiology to uses within various animal systems.
D4.0 Demonstrate understanding of animal reproduction, including the function of reproductive organs.
D5.0 Discuss animal inheritance and selection principles, including the structure and role of deoxyribonucleic acid (DNA).
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.
D10.0 Demonstrate understanding of the production of large animals (e.g., cattle, horses, swine, sheep, goats) and small animals (e.g., poultry, cavy, rabbits).

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.