Introduction to Veterinary Science

Course Credit	1.0
Grade Level(s)	9-12
Prerequisite(s)	

Introduction to Veterinary Science is designed to familiarize students with the scope, content, and opportunities of the veterinary science profession. Topics include safety, animal welfare, veterinary calculations, animal breed identification, anatomy and physiology, animal health, and laws and regulations.

Foundational standards, shown in the chart below, are an important part of every course. Through these standards, students learn and apply safety concepts, explore career opportunities and requirements, practice the skills needed to succeed in the workplace, develop leadership and take advantage of the opportunities afforded by Career and Technical Student Organizations, learn and practice essential digital skills, and participate in supervised projects which allow them to put into practice the skills and knowledge acquired in the classroom, shop, and lab. The foundational standards are to be incorporated throughout the course.

Foundational Standards	
	1. Incorporate safety procedures in handling, operating, and maintaining tools and machinery; handling materials; utilizing personal protective equipment; maintaining a safe work area; and handling hazardous materials and forces.
	2. Demonstrate effective workplace and employability skills, including communication, awareness of diversity, positive work ethic, problem-solving, time management, and teamwork.
	3. Explore the range of careers available in the field and investigate their educational requirements, and demonstrate job-seeking skills including resume-writing and interviewing.
	4. Demonstrate digital literacy by using digital and electronic tools appropriately, safely, and ethically.
	5. Participate in a Career Technical Student Organization (CTSO) to increase knowledge and skills and to enhance leadership and teamwork.
	6. Participate in Supervised Agricultural Experiences and/or work-based, experiential, and service learning.

Introduction to Veterinary Science Content Standards

Each content standard completes the stem *"Students will…"*

Safety	1. Identify safety precautions, procedures, and equipment used by veterinary personnel for handling animals. 2. Discuss the health risks of zoonotic diseases to humans and the historical significance of each disease. 3. Define types of hazards common in the veterinary hospital. 4. Determine the appropriate safety precautions for a given scenario and how to locate important safety information. *Examples: material safety data sheets, personal protective equipment*
Animal Welfare	5. Describe responsible animal ownership and management. 6. Discuss the relationship between animal rights and animal welfare.
Veterinary Calculations	7. Apply mathematical skills in the field of veterinary science, including drug dosages, feed rations, conversions, dilutions, and calculations that would commonly be used in a veterinary hospital, and in procedures used in managing the veterinary office, including invoices, cost calculations, and payroll.
Animal Breed Identification	8. Differentiate among major animal breeds and the specific temperament and behavioral characteristics of each breed.

Anatomy and Physiology	9. Describe the body systems of vertebrate animals and the function of each system. 10. Define directional anatomical terms.

Animal Health	11. Identify disease-prevention procedures that ensure animal health.
	
	Examples: immunizations, biosecurity, herd-health plans, trimming hooves
	
	    a. Describe normal and abnormal parameters of animal health.
	
	       Examples: heart rate, body temperature, body condition scores, respiratory rate, FAMACHA scores
	
	12. Demonstrate clinical procedures for administering vaccinations and medications.

Laws and Regulations	13. Summarize federal, state, and local laws that regulate policies and procedures in veterinary medicine pertaining to animal rights and welfare, professional licensing, and veterinary liability, including applicable regulations issued by the U.S. Food and Drug Administration, U.S. Dept. of Agriculture, Environmental Protection Agency, and Occupational Safety and Health Administration.