

Small Companion Animal Science

Exam Information	Description
Exam number 119 Items 46 National Career Cluster Agriculture Certification available Yes	This class is a look at the relationship between humans and their companion animals. Species covered include dogs, horses, and cats, with an emphasis on dogs. The curriculum will cover a broad variety of areas including zoology, animal behavior, training and learning theories, genetics and health care, animal husbandry, animal rescue, competition events and career exploration. Candidates will also participate in personal and leadership development through the FFA and work- based learning activities through their supervised agricultural experience program.

Exam Blueprint and Performance Skills

Standard	Percentage of exam score
1. Student Organizations*	2%
2. Work-Based Learning*	4%
3. Taxonomy, Binomial Nomenclature & Dichotomous Keys*	9%
4. Domestication	5%
5. Anatomy, Nutrition & Behavior*	21%
6. Reproduction Processes	12%
7. Methods of Animal Training*	14%
8. Ethology & Animal Behavior*	14%
9. Animal Welfare & Animal Rescue*	7%
10. Competitions with Dogs or Horses	5%
11. Animal Roles in the Community	7%

*Includes performance skill evaluation

Standard 1 - Student Organizations (2% of exam score)

Candidates will participate in personal and leadership development activities through the FFA.

Objective 1 Candidates will use communication skills to effectively communicate with others.

1. Understand when it is appropriate to listen and to speak.
2. Understand and follow verbal and written instructions for classroom and laboratory activities.
3. Will practice communication skills through public speaking using one or more of the following activities: memorized speech, prepared speech, extemporaneous speech, parliamentary practice, group presentation, or serving in a leadership capacity.

Objective 2 Candidates will effectively use teamwork to respectfully work with others.

1. Identify and understand different roles in working with a team.
2. Lead a group discussion or serve in a leadership capacity.

Objective 3 Candidates will use critical thinking and problem-solving skills.

1. Analyze the cause of the problem.
2. Develop a solution to address the problem.
3. Implement the plan.
4. Evaluate the effectiveness of the plan.

Objective 4 Candidates will be dependable, reliable, steady, trustworthy and consistent in performance and behavior.

1. Set and meet goals on attendance and punctuality.
2. Prioritize, plan and manage work to complete assignments and projects on time.

Objective 5 Candidates will be accountable for results.

1. Use an achievement chart for activities and behaviors in class that encourages a personal evaluation of classroom performance.
2. Use reflection to describe what was learned, what went well, what could have been improved, and what are the implications to the learning process.
3. Track and communicate progress toward completion of assignments and projects.

Objective 6 Be familiar with the legal requirements and expectations of the course

1. Be familiar with the course disclosure statement and all requirements for successful completion of the course.
2. Demonstrate workplace ethics, e.g. fair, honest, disciplined.

Optional: Standard performance evaluations on the final page of this document

Standard 2 - Work-Based Learning (0%)

Candidates will participate in work-based learning activities through the Supervised Agricultural Experience (SAE) Program.

Objective 1 Candidates will demonstrate employability skills.

1. Use a career search network to find career choices.
2. Identify the appropriate CTE Pathway for selected career choice.
3. Prepare for entry into the workforce by completing one of the following: list of required skills needed for a career choice, a resume including a list of demonstrated skills, a cover letter or letter of application, a job application, or participating in an actual or simulated job interview.

Objective 2 Candidates will participate in a work-based learning experience outside the classroom.

1. Candidates will plan and implement a Supervised Agricultural Experience Program:
 - a. Foundational SAE: Career exploration and planning, employability skills for college and career readiness, personal financial management and planning, workplace safety, and agricultural literacy.
 - b. Immersion SAE: Ownership/entrepreneurship, placement/internship, research, school-based enterprise, and/or service-learning experiences.

Objective 3 Candidates will develop a job portfolio specific to their selected SAE/WBL experience.

1. Candidates will keep a personal record/journal/log of their SAE/WBL experience; including pictures, financial records, or log of their hours, skills learned, goals, reflection, etc.

Optional: Standard performance evaluations on the final page of this document

Standard 3 - Taxonomy, Binomial Nomenclature & Dichotomous Keys (9%)

Candidates will understand the meaning of Taxonomy, Binomial Nomenclature, and Dichotomous keys.

Objective 1 Know the common names used to identify the sex and age of the following companion animals: horse, dog, and cat.

Objective 2 Demonstrate a knowledge of Binomial Nomenclature as it is used to identify and classify animals including how it helps to identify how different species may be related.

Objective 3 Know the seven levels of taxonomic classification in order from most general to most specific.

1. Kingdom, Phylum, Class, Order, Family, Genus, and Species.

Optional: Standard performance evaluations on the final page of this document

Standard 4 - Domestication (5%)

Candidates will understand the processes of domestication.

Objective 1 Understand the difference between domestication and tameness.

Objective 2 Understand the difference between Artificial Selection (Selective Breeding) and Natural Selection.

Objective 3 Understand that the process of domesticating animals can also create physiological, behavioral, and physical changes in the animal.

Objective 4 Be able to define Charles Darwin's "Mysterious Law of Correlation", that as you select for specific genotypes there can be multiple side effects that are correlated to the genome that you are manipulating. Example: selecting for temperament can also bring changes to conformation or color.

Standard 5 - Anatomy, Nutrition & Behavior (21%)

Candidates will understand animal anatomy and physiology as it relates to nutrition, health, management, and the behavior of domesticated animals.

Objective 1 Demonstrate knowledge of the following anatomic systems.

1. Skeletal, Muscular, Nervous, Circulatory, Respiratory, Digestive, Excretory, Endocrine, and Reproductive.

Objective 2 Demonstrate knowledge of dog, horse, and cat senses.

1. Olfactory system (smell)
2. Gustation (taste)
3. Auditory System (hearing)
4. Tactile (touch)
5. Vision (sight); with an understanding of the differences in vision of prey and predatory animals.

Objective 3 Demonstrate knowledge of common diseases and parasites.

1. Understand how diseases are transmitted.
2. Understand common diseases in dogs, horses, and cats.
 - a. Horse: Eastern / Western Equine Encephalitis, Tetanus, West Nile Virus, Strangles, Colic, etc.
 - b. Canine: Canine distemper, Canine parvovirus, Canine heartworm, Canine kennel cough, Canine Roundworm, etc.
 - c. Feline: Feline Panleukopenia (distemper), Feline Immunodeficiency Virus, Feline Infectious Peritonitis, Toxoplasmosis, Rabies, etc.
3. Understand vaccinations protocols in dogs, horses, and cats.

Objective 4 Demonstrate a knowledge of basic First Aid and CPR with companion animals.

1. Understand and demonstrate CPR.
2. Understand and demonstrate First Aid techniques.
3. Understand signs of an emergency.
 - a. Respiratory distress, blood loss, swelling, non-weight bearing lameness, fever, pain.
4. Demonstrate knowledge of first aid supplies and uses.

Objective 5 Demonstrate knowledge of nutritional needs of dogs, horses, and cats.

1. Understand the basic nutritional diets for dogs, horses, and cats.
2. Understand alternative diets to treat medical condition in dogs, horses, and cats.

Objective 6 Understand nontraditional health care.

1. Acupuncture, massage therapy, hydrotherapy, chiropractic therapy, etc.

Optional: Standard performance evaluations on the final page of this document

Standard 6 - Reproduction Processes (12%)

Candidates will understand reproduction processes for dogs, cats, and horses.

Objective 1 Understand the estrous cycle in dogs, horses, and cats.

Objective 2 Understand natural breeding practices and alternative breeding practices for dogs, horses, and cats.

Objective 3 Understand the gestation period and fetal development for dogs, horses, and cats.

Objective 4 Understand population control methods in dogs and cats.

Standard 7 - Methods of Animal Training (14%)

Candidates will express an understanding of the fundamental principles of veterinary medicine and be able to demonstrate proficiency in each area.

Objective 1 Understand animal behavior and learning theory.

1. Classical Conditioning
2. Operant Conditioning
3. Trial and Error Learning
4. Observational Learning

Objective 2 Demonstrate a knowledge of different training methods.

1. Demonstrate methods such as luring, placement, compulsion, and operant conditioning.

Objective 3 Demonstrate a knowledge of common behavior problems.

1. Dog: barking, house soiling, separation anxiety, noise anxiety, biting and aggression, resource guarding, etc.
2. Cat: urine marking, aggression, scratching, fear behaviors, etc.

Objective 4 Demonstrate knowledge of behavior modification protocols.

1. Remedial socialization
2. Desensitization
3. Clicker training
4. Counter conditioning

Optional: Standard performance evaluations on the final page of this document

Standard 8 - Ethology & Animal Behavior (14%)

Candidates will understand Ethology and how it relates to animal behavior.

Objective 1 Demonstrate a knowledge of how animals use body language to communicate ("Ethology").

Objective 2 Demonstrate knowledge for the use of ethograms and how they are used in animal welfare.

Optional: Standard performance evaluations on the final page of this document

Standard 9 - Animal Welfare & Animal Rescue (7%)

Candidates will demonstrate proficiency in the office procedures related to veterinary practice.

Objective 1 Demonstrate a knowledge of animal enrichment and welfare.

1. Understand that animal welfare involves both the physical health of the animals as well as their psychological well-being.
2. Understand enrichment activities for different species.
3. Describe and understand the difference between animal welfare and animal rights.

Objective 2 Demonstrate a knowledge of Animal Rescues.

1. Demonstrate knowledge of different organizations involved in animal rescues.
2. Demonstrate knowledge of the causes and effects animal rescues play in a community.

Optional: Standard performance evaluations on the final page of this document

Standard 10 - Competitions with Dogs or Horses (5%)

Candidates will understand different competitions relating to dogs or horses.

Objective 1 Demonstrate a knowledge of different competitions with animals.

1. Dog showing.
2. Horse showing

Objective 2 Candidates will understand correct structure (confirmation) and movement.

1. Demonstrate knowledge of the part this plays in working ability and breeding.

Objective 3 Candidates will understand the concept of different breeds in a species.

1. Demonstrate knowledge of a breed standards and selective breeding.
2. Demonstrate knowledge of roles different breeds have.
3. Demonstrate knowledge of the role a breed standard places in showing competitions.

Optional: Standard performance evaluations on the final page of this document

Standard 11 - Animal Roles in the Community (7%)

Candidates will understand roles that animals play in the community.

Objective 1 Understand the role of service and therapy animals.

Objective 2 Understand the role of human-animal bonding.

Performance Skills Evaluation

Exam name: Small Companion Animal Science

Candidate Name: _____

Performance assessments may be completed and evaluated any time before the certification is issued. The following performance skills can be used in connection with the associated standards and exam. The evaluator will function as the subject matter expert to determine if the candidate meets the skills requirements with a Yes/No for passing.

Standard 1 - Student Organizations Attend a FFA Chapter Meeting.	Pass:
Standard 2 - Work-Based Learning Successfully complete a Supervised Agricultural Experience Program.	Pass:
Standard 3 - Taxonomy, Binomial Nomenclature & Dichotomous Keys Use proper terminology to identify the sex and age of dogs, cats, and horses.	Pass:
Standard 5 - Anatomy, Nutrition & Behavior Demonstrate 3 of the following first aid skills: check respiratory rate, temperature capillary refill time, pulse, put on a splint, perform CPR.	Pass:
Standard 7 - Methods of Animal Training - When given an animal behavior problem, the candidate will be able to demonstrate at least one behavior modification protocol to fix the problem. - Demonstrate how to use different training techniques.	Pass:
Standard 8 - Ethology & Animal Behavior Using an ethogram, observe a dog and determine what they are trying to communicate.	Pass:
Standard 9 - Animal Welfare & Animal Rescue Demonstrate the use of an enrichment activity with dogs, cats, and horses.	Pass:

Evaluator Name:

Date:
