Implementation date
Fall 2009

PROGRAM CONCENTRATION: **Agriculture**
CAREER PATHWAY: **Veterinary Science**
COURSE TITLE: **Small Animal Care**

Course Description: The goal of this course is to provide students with skills and concepts involved with the care and management of companion animals. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

AG-SAC-1. Students will demonstrate an understanding of the industry involved in producing small animals.

a. Describe the history of animal domestication.
b. Explain the need of humans to have companion animals.
c. Describe the ways in which humans may make use of companion animals.

Academic Standards:
ELA10RC4 (a) The student explores life experiences related to subject area content.

ELA10RC4 (c) The student determines strategies for finding content and contextual meaning for unfamiliar words or concepts.

SSWG1 (b) The student explains how human characteristics including population settlement patterns and human activities such as agriculture and industry can describe a place.

AG-SAC-2. Students will demonstrate an understanding of the safety issues involved with managing small animals.

a. List and discuss zoonotic diseases and their mode of transmission.
b. Explain the safety precautions used to prevent disease transmission.
c. Discuss the proper handling procedures of small animals.
d. Describe health problems that can result from small animal bites and scratches.

Academic Standards:
SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SAP4 (d) The student examines various conditions that change normal body functions (e.g. tissue rejection, allergies, injury, diseases and disorders) and how the body responds.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

AG-SAC-3. Students will discuss the importance of the small animal industry to the economy of the U.S.

a. Discuss the career opportunities in small animal production.
b. Explain the uses of small animals for purposes other than for companion animals.
c. Explain supply and demand as it pertains to the small animal industry in the U.S.

Academic Standards:
SSEF3 The student explains how specialization and voluntary exchange between buyers and sellers increase the satisfaction of both parties.

SSEMI2 The student explains how the Law of Demand, the Law of Supply, prices, and profits work to determine production and distribution in a market economy.

AG-SAC-4. Students will explain the responsibilities and factors involved in owning and caring for a pet.

a. List the factors involved in choosing a pet.
b. Describe the advantages and disadvantages of pet ownership.
c. Explain the importance of proper pet health care.
d. Explain the concept and responsibility of euthanasia.

Academic Standards:
ELA10RL5 (c) The student uses general dictionaries, specialized dictionaries, thesauruses, or related references as need to increase learning.

AG-SAC-5. Students will distinguish between the concept of animal rights and the concept of animal welfare.

a. Define the term animal welfare.
b. Define the term animal rights.
c. Debate the issue regarding animal rights and welfare.

Academic Standards:
SAP4 The student analyzes the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

ELA10LSV1 (e) The student offers own opinion forcefully without domineering.

ELA10LSV1 (i) The student employs group decision-making techniques such as brainstorming or a problem-solving sequence (e.g., recognizes problem, defines problem, identifies possible solutions, selects optimal solution, implements solution, evaluates solution).

AG-SAC-6. Students will describe and understand the digestive system and the nutritional needs of companion animals.

a. Explain what is meant by a simple stomach system.
b. Explain where enzymes are produced in the digestive system.
c. Explain the function of the stomach, small intestine, and large intestine.
d. Describe how nutrients are used by the animal's body and the difference in nutritional needs of mammals and reptiles.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SAP4 The student analyzes the physical, chemical, and biological properties of process systems as these relate to transportation, absorption and excretion, including the cardiovascular, respiratory, digestive, excretory and immune systems.

The student relates the nature and distribution of life on Earth, including humans, to the chemistry and availability of water.

AG-SAC-7. Students will demonstrate an understanding of the reproductive processes of small mammals.

a. List and describe the major parts of the female and male reproductive tract.
b. List the gestation periods for different companion animals.
c. Explain the process of parturition.
d. Discuss the nutritional needs of gestating females.
e. Explain the importance of neutering and spaying non-breeding animals.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

AG-SAC-8. Students will demonstrate an understanding of the development of the dog and classify the different types and breeds of dogs. They will also demonstrate an understanding of the care and management of dogs.

a. Explain the ancestry of the domesticated dog.
b. Describe the characteristics of dogs that make them desirable as a companion animal.

c. Discuss how different breeds of dogs were developed.
d. Explain how dogs are classified according to use and size.
e. Describe the nutritional needs of dogs.
f. Outline a vaccination program for dogs.
g. Describe the various grooming techniques used for dogs.
h. Describe the different methods used to train dogs.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-9. Students will demonstrate an understanding of the development of the cat and classify the different types and breeds of cats. They will also demonstrate an understanding of the care and management of cats.

a. Explain the ancestry of the domesticated cat.
b. Describe the characteristics of cats that made them desirable as a companion animal.
c. Discuss how different breeds of cats were developed.
d. Describe how cats are classified according to hair length and color.
e. Describe the nutritional needs of cats.
f. Outline a vaccination program for cats.
g. Describe the difficulties encountered when training cats.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-10. Students will demonstrate an understanding of the production and management of rabbits for food and as companion animals.

a. Classify rabbits scientifically.
b. Classify rabbits according to fur length, use, and ear type.
c. Describe a meat type rabbit.
d. Describe the nutritional value of rabbit meat.
e. Describe management practices used in raising rabbits for meat.
f. Describe the characteristics of rabbits that make them desirable as companion animals.
g. Explain the needs of a companion rabbit.
h. Describe the nutritional needs of rabbits.
i. Outline a vaccination program for rabbits.
j. Develop a plan for feeding rabbits.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-11. Students will demonstrate an understanding of the proper care for cavies.

a. Describe the characteristics of a cavie.
b. Describe the characteristics of a gerbil, hamster, and guinea pig.
c. Explain the housing needs of cavies.
d. Discuss the nutritional requirements of cavies.
e. Develop a disease preventive program.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relate these phenomena to human society.

AG-SAC-12. Students will demonstrate an understanding of the characteristics of reptiles and how to care for them.

a. Compare the four orders of reptiles.
b. Explain the differences between mammals and reptiles.
c. Explain the advantages of having reptiles for pets.
d. Outline safety precautions used in handling reptiles.
e. Develop a feeding plan for reptiles.
f. Describe three diseases that affect reptiles.
g. Discuss the hibernation process.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-13. Students will demonstrate an understanding of birds as companion animals and how to care for them.

a. Describe the characteristics of birds.
b. Describe the types and breeds of birds that make good companion animals.
c. Discuss the importance of purchasing birds from a reputable dealer.
d. Discuss the housing needs of birds.
e. Discuss the nutritional needs of birds.
f. Explain the procedure used to clip a bird's wing.
g. Outline a vaccination program for birds.
h. Understand bio-security and foul diseases and how disease may impact other foul and possibly humans.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-14. Students will develop an understanding of the nature of aquatic pets and how to care for them

a. Explain the importance of a quality aquatic environment.
b. Describe the differences between freshwater and saltwater fish and warm water and cold water fish.
c. Describe the equipment needed to raise aquatic pets.
d. List the differences in caring for saltwater and freshwater fish.
e. Discuss the nutritional needs of aquatic pets.
f. List and describe the common diseases of aquatic pets and their treatments.
g. Discuss the reproductive process of aquatic animals.

Academic Standards:
SB1 The student analyzes the nature of the relationships between structures and functions in living cells.

SB2 The student analyzes how biological traits are passed on to successive generations.

SB3 The student derives the relationship between single-celled and multi-celled organisms and the increasing complexity of systems.

SB5 The student evaluates the role of natural selection in the development of the theory of evolution.

SEV1 The student investigates the flow of energy and cycling of matter within an ecosystem and relates these phenomena to human society.

AG-SAC-15. Students will become oriented to the comprehensive program of agricultural education, learn to work safely in the agriculture lab and work sites, demonstrate selected competencies in leadership through the FFA and agricultural industry organizations, and develop plans for a supervised agricultural experience program.

a. Explain the role of the Agriculture Education program and the FFA in personal development.
b. Demonstrate knowledge learned through a Supervised Agricultural Experience Program (SAEP).
c. Develop leadership and personal development skills through participation in the FFA.
d. Explore career opportunities in animal science thought the FFA and Agriculture Education Program.
e. Explore the professional agricultural organizations associated with the course content.

Academic Standards:
ELA10C1 The student demonstrates understanding and control of the rules of the English language, realizing that usage involves the appropriate application of conventions and grammar in both written and spoken formats.

SCSh2. The student uses standard safety practices for all classroom laboratory and field investigations.

ELA10LSV1 (d) The student actively solicits another person's comments or opinion. (e) The student offers own opinion forcefully without domineering.

ELA10LSV1 (i) The student employs group decision-making techniques such as brainstorming or a problem-solving sequence (e.g., recognizes problem, defines problem, identifies possible solutions, selects optimal solution, implements solution, evaluates solution).

ELA10LSV1 (e) The student offers own opinion forcefully without domineering. (f) The student contributes voluntarily and responds directly when solicited by teacher or discussion leader. (g) The student gives reasons in support of opinions expressed.

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GATEWAY TO EDUCATION & PROFESSIONAL RESOURCES
One Stop Shop For Teachers

Reading Across the Curriculum

Reading Standard Comment

After the elementary years, students engage in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas in *context*.

Beginning with the middle grades years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

CTAE-RC-1 Students will enhance reading in all curriculum areas by:

Reading in All Curriculum Areas

-Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
-Read both informational and fictional texts in a variety of genres and modes of discourse.
-Read technical texts related to various subject areas.

Discussing Books

-Discuss messages and themes from books in all subject areas.
-Respond to a variety of texts in multiple modes of discourse.
-Relate messages and themes from one subject area to messages and themes in another area.
-Evaluate the merit of texts in every subject discipline.
-Examine author's purpose in writing.
-Recognize the features of disciplinary texts.

Building Vocabulary Knowledge

-Demonstrate an understanding of contextual vocabulary in various subjects.
-Use content vocabulary in writing and speaking.
-Explore understanding of new words found in subject area texts.

Establishing Context

-Explore life experiences related to subject area content.
-Discuss in both writing and speaking how certain words are subject area related.
-Determine strategies for finding content and contextual meaning for unknown words.

CTAE Foundation Skills

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state's academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U. S. Department of Education's 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational Structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.