

LCB File No. R185-03

**PROPOSED REGULATION OF THE  
STATE BOARD OF EDUCATION**

**Explanation:** Matter *in italics* is new; matter in brackets [ ] is material to be omitted.

**AUTHORITY:** NRS 385.080

Animal Science & Veterinary Medicine

**Section 1.** NAC 389 is hereby amended as follows:

**Section 2.** *Animal Science and Veterinary Medicine. A course of study in agriculture and natural resource sciences must be designed so that pupils meet the following performance standards by completion of the terminal course of instruction.*

*1. Introduction to Animal Science: Students will understand the history and importance of Domestic Animals.*

*(a) Students will be able to define animal science and its components.*

*(b) Students will be able to describe how, why, and when the domestication of animals occurred.*

*(c) Students will be able to classify animals using accepted nomenclatures.*

*(d) Students will explore global trends and impact of domesticated animals.*

*2. Anatomy and Physiology: Students will understand the structure and function of the major organ systems of animals.*

*(a) Students will be able to identify the external anatomy of domesticated animals.*

*(b) Students will be able to identify and describe the anatomy and functions of the musculoskeletal, nervous, and integumentary systems.*

*(c) Students will be able to identify and describe the anatomy and functions of digestive and urinary systems.*

*(d) Students will be able to identify and describe the anatomy and functions of reproductive and endocrine systems.*

*(e) Students will be able to identify and describe the anatomy and function of cardiovascular, hemolymphatic and respiratory systems.*

*3. Animal Evaluation and Selection: Students will demonstrate an understanding of the process of evaluation and selection of animals based on current industry standards.*

*(a) Students will be able to recognize and describe the different breeds within the species of domesticated animals.*

*(b) Students will be able to identify the various types and conformations of domesticated animals.*

*(c) Students will be able to analyze and interpret the performance data used in selecting domesticated animals.*

*(d) Students will be able to recognize the importance of physical condition in animal evaluation.*

*4. Animal Genetics: Students will understand the basic theory of inheritance and the genetic basis for animal selection.*

*(a) Students will be able to explain the role genetics play in animal production and performance.*

*(b) Students will be able to explain the process of cellular division and how it relates to the transference of genetic information.*

*(c) Students will be able to explain linkage, crossover and mutation as they relate to the transmission of characteristics.*

*(d) Students will be able to discuss genetic engineering and its effects on animal production and performance.*

*5. Animal Reproduction Management: Students will understand the structure and function of the Endocrine and Reproductive Systems and how they relate to reproductive management practices and fetal development.*

*(a) Student will be able to describe the factors that effect fertility and the process of fertilization.*

*(b) Student will be able to describe the stages of fetal development and gestation.*

*(c) Student will be able to describe the process of parturition and lactation.*

*(d) Student will be able to describe the common breeding systems used in animal reproduction.*

*6. Feeds/Nutrition: Students will understand the nutritional requirements and feeding practices of animals.*

*(a) Students will be able to differentiate the types of gastrointestinal tracts and their dietary requirements.*

*(b) Students will be able to identify the nutrients and the nutritional requirements for animal production and performance.*

*(c) Students will be able to identify and classify the common feeds used for animal production and performance including methods of preparation and processing.*

*(d) Students will be able to explain the role feed additives have in animal nutrition.*

*7. Animal Health: Students will understand the prevention and etiology of animal diseases with a regional emphasis.*

*(a) Students will be able to recognize common infectious diseases in domestic animals.*

*(b) Students will be able to recognize nutritional diseases in domestic animals.*

*(c) Students will be able to recognize common genetic and congenital diseases in domestic animals.*

*(d) Students will be able to recognize the environmental diseases associated with domestic animals.*

*(e) Students will be able to recognize common developmental diseases in domestic animals.*

*(f) Students will be able to recognize common traumatic injuries in domestic animals.*

*8. Facility/Equipment/Handling: Students will recognize accepted industry standards for use and selection of animal facilities, housing, restraint equipment, and tools.*

*(a) Students will be able to classify and discuss the different types of housing and penning systems used for domesticated animals.*

*(b) Students will be able to identify and describe appropriate methods of restraint and handling of domesticated animals.*

*(c) Students will be able to recognize the behaviors common to domesticated animals associated with confinement and handling.*

*(d) Students will be able to describe appropriate and safe methods of animal transportation.*

*(e) Students will be able to recognize the type of equipment used in animal management.*

*9. Animal Welfare: Students will develop an understanding of animal issues and uses in today's society.*

*(a) Students will be able to discuss the philosophies surrounding animal welfare.*

*(b) Students will be able to discuss historical events, changing attitudes, and legislation regarding animal use.*

*(c) Students will be able to discuss controversial practices and cultural differences in animal use.*

*10. Animals and Society: Students will develop an awareness of the relationship and interaction of animals in society.*

*(a) Students will be able to describe how domesticated animals are used as sources of food and fiber.*

*(b) Students will be able to discuss food safety as it relates to animal products and by-products.*

*(c) Students will be able to discuss current government regulations concerning animal use.*

*(d) Students will be able to recognize the existence and importance of the human-animal bond.*

*11. Animal and Environment: Students will understand the roles and impacts animals have with the ecosystem.*

*(a) Students will be to describe sustainable agricultural practices associated with animal production.*

*(b) Students will be able to discuss various aspects of range management practices and their relationship to the land.*

*(c) Students will be able to discuss various aspects of domesticated animal management and their relationship to wildlife management.*

*12. Non-Traditional and Specialty Animals: Students will understand the significance of non-traditional and specialty animals.*

*(a) Students will develop an understanding of husbandry practices of non-traditional and specialty animals.*

*13. SAE: Students will explain the relationship between a Supervised Agriculture Experience (SAE) and their preparation for a career in Agriculture.*

*(a) Students will actively engage in and manage an SAE, which enables them to develop work-based skills.*

*14. Leadership/FFA: Students will recognize the importance of leadership skills including interpersonal relations, group management, and communication.*

*(a) Students will recognize the traits of effective leaders and participate in leadership training through involved participation in the FFA.*

*15. Employability Standard: Student shall achieve competence in workplace readiness, career development, and lifelong learning.*

*(a) Students shall demonstrate problem-solving skills.*

*(b) Students shall demonstrate critical-thinking skills.*

*(c) Students shall demonstrate the ability to speak, write, and listen effectively.*

*(d) Students shall demonstrate the ability to select, apply, and maintain appropriate technology.*

- (e) Students shall demonstrate leadership and teamwork skills.*
- (f) Students shall demonstrate sound workplace ethics.*
- (g) Students shall demonstrate the ability to effectively manage resources in high-performance workplaces.*
- (h) Students shall demonstrate career planning and development skills.*
- (i) Students shall demonstrate job-retention and lifelong-learning skills.*

Language to be deleted:

**Section 3.** ~~[NAC 389.528—Veterinary technology. A course of study in veterinary technology must include instruction designed to teach the pupil to do the following:~~

- ~~—1. Recognize clinical signs of common diseases in animals.~~
- ~~—2. Demonstrate a knowledge of the procedures for the management of an office in a veterinary clinic.~~
- ~~—3. Provide assistance in the examination and treatment of animals.~~
- ~~—4. Develop a knowledge of state and federal statutes and regulations concerning drugs.~~
- ~~—5. Recognize the principles and methods for the control of disease.]~~