LCB File No. R155-01

PROPOSED REGULATION OF THE STATE BOARD OF EDUCATION

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

AUTHORITY: NRS 385.080

Section 1. NAC 389 is hereby amended as follows:

Section 2. NAC 389.516 Permissible elective courses of study. (NRS 385.080, 385.110, 389.0185) A local school board may offer the following courses of study as elective courses in a public high school:

- 1. History, other than American history.
- 2. Government, other than American government.
- 3. Agriculture, which may include the courses of study described in NAC 389.520 to 389.538, inclusive.
- 4. The arts.
- 5. Business, which may include the courses of study described in NAC 389.542 to 389.554, inclusive.
- 6. Communications, which may include the courses of study described in NAC 389.556 and 389.558.
- 7. Occupational education, in cooperation with private employers, as described in NAC 389.562, 389.564 and 389.566.
- 8. Drivers' education
- 9. Foreign language.
- 10. Occupations, which may include the courses of study described in NAC 389.572 to 389.584, inclusive.
- 11. Occupations in trade and industry, which may include the courses of study described in NAC 389.586 to 389.618, inclusive.
- 12. [Home Economics] Family and Consumer Sciences.

- 13. Industrial arts.
- 14. Marketing.
- 15. Skills needed to obtain employment as described in NAC 389.644 to 389.650, inclusive.
- 16. Social studies.
- 17. Introduction to occupations which may include the courses of study described in NAC 389.6528 to 389.6547, inclusive.
- 18. Great Basin Native American languages.

AGRICULTURAL AND NATURAL RESOURCES

Section 3. NAC 389.520 Agriculture *and Natural Resource Sciences*. [A course of study in agriculture must include instruction designed to teach the pupil to do the following:

- 1. Demonstrate a knowledge of the purpose of organization of the Future Farmers of America.
- 2.Develop knowledge and skill in modern production of livestock.
- 3. Develop knowledge and skill in modern production of crops.
- 4. Apply current practices for the management of an agriculture business.
- 5. Demonstrate a knowledge of the skills acquired while working in the field of agriculture under the supervision of a teacher.
- 6. Apply current uses of agricultural machinery as they relate to agriculture industries.
- 7. Demonstrate a knowledge and skill in modern horticultural practices.
- 8. Apply a knowledge of the use of computers in agriculture.
- 9. Develop knowledge and skill of the techniques for constructing of a modern farm.
- 10. Develop knowledge and ability to accurately calculate needs in the management of a farm.]

Agriculture education provides high school students with technical and specialized knowledge in production agriculture and natural resources as well as other specific agriculture occupations. The programs are designed to meet students' occupational objectives, interests, and abilities for entry into chosen occupations and can prepare them for advanced education and training. Agriculture education is a coordinated program of group and individual instructional activities consisting of classroom instruction, laboratory experiences, and leadership development. Integral to these activities are FFA (leadership development) and

Supervised Agriculture Experience (work-based learning). Federal/Public law#105-225which was passed in August, 1998, states "Congress of the United States, recognizes the importance of the FFA as an integral part of the program of Vocational Agriculture." All students enrolled in Agriculture Education will be recognized as members of the FFA organization. All secondary agriculture education programs and school districts will purchase a curriculum packet consisting of the New Horizons agriculture career and technical magazine, the FFA manual, and the Nevada Record Book on a yearly basis for every student enrolled in agriculture education through the Agriculture Education Consultant at the Nevada Department of Education. Areas of study at the secondary level are divided into Agriculture and Natural Resource Sciences and Specialized Advanced Agriculture Career and Technical Areas.

Career and Technical Education courses in Agriculture must contain and meet the requirements of the Agriculture Occupational Skill Standards as approved by the State Board of Occupational Education and Nevada Revised Statute. Instruction in the 12th grade in Agriculture Education must be designed so that pupils and programs meet the Occupational Skill Performance Standards and the above program requirements upon completion of enrolled courses.

Instruction in business/specialized agriculture provides training in specific occupational skills, duties, and tasks, as determined by the business and industry needs. Specialized career and technical agriculture programs will include, but are not limited to, the following: ornamental horticulture, floriculture design, turf and landscape management, equine science and technology, forestry technology, wildlife management and enforcement, food science and processing, feedlot management, animal science, veterinary science, agriculture power systems, natural resources and reclamation, mining science and operations, nursery and greenhouse management, landscape architecture, irrigation and chemical management, lawn care and maintenance, and agriculture mechanical and construction engineering.

The Agriculture and Natural Resource Sciences Standards include the following content and performance standards:

- Standard 1.0 Agriculture and Society. Students will develop an awareness of the interrelationship of Nevada agriculture and society on the local, state, national, and international levels, and will discuss the economic impact of leading commodities.
 - 1.1 Students will be able to identify and categorize agricultural products and services in the State of Nevada.
 - 1.2 Students will be able to discuss the role of agriculture in the development of society.
 - 1.3 Students will understand the economic value of agricultural commodities produced on the local, state, national and international level.
- Standard 2.0 Animal Science. Students will understand the importance of animals, their domestication, and role in modern society. Students will explain the care and uses of domesticated livestock in society.
 - 2.1 Students will demonstrate an understanding of the process of evaluation and selection of livestock based on current industry standards.
 - 2.2 Students will understand the correct and safe uses and selection of animal facilities, housing, and equipment.
 - 2.3 Students will understand the structure and function of the reproductive systems and how they relate to reproductive management practices and fetal development.
 - 2.4 Students will understand the factors influencing animal nutrition and feeding. Students will identify common feed ingredients and will explain the uses of different feeds for particular animal species.
 - 2.5 Students will identify general symptoms of animal health problems and will understand the causes of disease in domestic animals.
 - 2.6 Students will develop an appreciation of the public's perception of animal welfare issues.
- Standard 3.0 Plant and Soil Science. Students will understand the requirements for plant growth and development with the interaction of soil, water, and fertilizer in plant production.

Students will identify and explain the functions of plant systems, soil characteristics, and the interaction of both.

- 3.1 Students will understand the principles of plant classification by taxonomy and use.
- 3.2 Students will understand the principals of plant physiology and growth.
- 3.3 Students will recognize differences in plant reproductive systems.
- 3.4 Students will understand the relationship between soils and plant production.
- 3.5 Students will understand the importance of plant systems, management, and care.
- 3.6 Students will understand the economic and aesthetic role of horticulture in their community and in local, state, and national industries.
- Standard 4.0 Supervised Agricultural Experience. Students will understand the relationship between a Supervised Agriculture Experience (SAE) and their preparation for a career in agriculture.
- 4.1 Students will actively engage in and manage an SAE, which enables them to develop them to develop work-based skills.
- Standard 5.0: Leadership/Future Farmers of America Students will recognize the traits of effective leaders and participate in leadership training through involved membership in the Future Farmers of America.
 - 5.1 Students will understand basic principals of organizational framework, communications, group dynamics and team building, and meeting management.
- Standard 6.0 Agriculture Business, Sales, and Marketing. Students will understand the importance of agricultural firms and technologies with regard to the production, processing, servicing, purchasing, and marketing of agricultural products.
 - 6.1 Students will understand the principles of basic marketing of agricultural products.
 - 6.2 Students will understand the basic principles of agriculture sales and service.
 - 6.3 Students will understand the principles of business management concepts.

- Standard 7.0 Agriculture Mechanical Engineering and Technology. Students will understand concepts of mechanical systems and structures. Students will also understand emerging technologies and their interrelationship in the agriculture industry.
 - 7.1 Students will understand the operating principles of common tools used in agriculture and will understand the basic principles of safety.
 - 7.2 Students will understand the different types of power systems, major components, and principles of operation.
- Standard 8.0 Natural Resources. Students will understand the interrelationship of modern agriculture and the environment, focusing on water, land, and other natural resources in Nevada. Students will explain how natural resource availability affects agriculture.
 - 8.1 Students will explain the importance of agriculturists as stewards of our natural resources.
 - 8.2 Students will describe the environmental impacts of agriculture on water, soil, and air.
 - 8.3 Students will understand the importance and value on mining in Nevada.
 - 8.4 Students will understand the importance of wildlife management and its interrelationship to agriculture.
- Standard 9.0 Employability Standard. Students shall achieve competence in workplace readiness, career development, and lifelong learning.
 - 9.1 Students shall demonstrate problem-solving skills.
 - 9.2 Students shall demonstrate critical thinking skills.
 - 9.3 Students shall demonstrate the ability to speak, write, listen effectively.
 - 9.4 Students shall demonstrate the ability to select, apply, and maintain appropriate technology.
 - 9.5 Students shall demonstrate leadership and teamwork skills.
 - 9.6 Students shall demonstrate sound workplace ethics.
 - 9.7 Students shall demonstrate the ability to effectively manage resources in highperformance workplaces.

- 9.8 Students shall demonstrate career planning and development skills.
- 9.9 Students shall demonstrate job-retention and lifelong-learning skills.

FAMILY AND CONSUMER SCIENCES

Section 4. NAC 389.620 [Home economics.

- 1. If a district offers a course of study in home economics, it must include instruction in the following areas:
 - (a) Nutrition and foods;
 - (b) Textiles and clothing;
 - (c) Child development and parenting;
 - (d) Human relationships;
 - (e) Housing and living environments; and
 - (f) Consumerism and management,

but the requirement to provide instruction in each area may be waived if it can be demonstrated that the pupil received the requisite instruction before entering the ninth grade.

- 2. The course of study in home economics must include instruction designed to teach the pupil to do the following:
 - (a) Identify nutrients needed by the body and their physical, social, intellectual and emotional effect on a person.
 - (b) Prepare and serve nutritionally balanced meals.
 - (c) Use sanitary methods to store, prepare and serve food and dispose of waste.
 - (d) Select proper clothing based on common fibers in a textile, fabric, fashion, cultural heritage, personal appearance and activities.
 - (e) Demonstrate the skills necessary for the planning, selection and maintenance of a wardrobe, including techniques for construction and repair.
 - (f) Describe the basic theories regarding the development of a child.
 - (g) Describe the influence of heredity, environment and nutrition on babies.
 - (h) Demonstrate the skills necessary to be a parent.
 - (i) Describe the physical, emotional, social and intellectual cycles of the human being from birth to 5 years of age and from 5 years of age to death.

- (j) Identify services available in the community for persons and families in need.
- (k) Identify the roles of the members of a family.
- (l) Describe the social, cultural and economic changes which affect the structure of the family.
- (m)Explain the relationship between the demands of employment and the ability to function as a member of a family.
- (n) Identify potential crises for a family and how these crises may be resolved.
- (o) Describe how, in planning for housing a person's needs and wants influence the choice.
- (p) Identify the cost of alternative forms of housing.
- (q) Identify ways to ensure efficient use of energy in a residence.
- (r) Identify personal wants, needs, values, attitudes and priorities and how they relate to making decisions and setting goals.
- (s) Apply the techniques for comparative shopping.
- (t) Use resources for the protection of consumers.
- (u) Describe the uses of insurance.
- (v) Demonstrate a knowledge of the services provided by financial institutions.]

Family and Consumer Sciences. If a district offers a course of study in Family and Consumer Sciences, the course must include the Family and Consumer Sciences Skill Standards as approved by the State Board for Occupational Education and Nevada Revised Statue.

The following content standards have been identified for the Family and Consumer Sciences Skill Standards: Human and Family Development, Food Science and Nutrition, Textiles and Apparel, Family and Consumer Resource Management, and Employability.

For each content standard, performance standards have been identified as follows:

Standard 1.0 Human and Family Development. The student shall examine principles and roles of family and human development.

1.1 Explore stages of development through the life span.

- 1.2 Explore the roles and responsibilities of parenting that maximize human growth and development.
- 1.3 Evaluate an effective family unit and how it impacts individuals.
- 1.4 Analyze factors affecting the decision to parent.
- 1.5 Utilize developmentally appropriate activities for young children.
- 1.6 Determine opportunities and requirements for employment in the child care industry.

Standard 2.0 Food Science and Nutrition. The student shall integrate knowledge, skills and practices in food science and nutrition.

- 2.1 Demonstrate food safety and sanitation practices.
- 2.2 Utilize nutrition principles and technology in food planning and preparation.
- 2.3 Apply management principles related to food and nutrition.
- 2.4 Demonstrate skills and procedures in food preparation and service
- 2.5 Demonstrate food science principles that affect food product quality.
- 2.6 Determine opportunities and requirements for employment in nutrition and the food industry.

Standard 3.0 Textiles and Apparel - The student shall integrate knowledge, skills and practices in textiles and apparel.

- 3.1 Demonstrate skills needed to produce, alter and repair textile products and apparel.
- 3.2 Evaluate the use and care of fiber, fabrics and textile materials.
- 3.3 Examine elements and principles of design in creating, constructing and altering textile products to enhance visual appearance.
- 3.4 Examine the consumer skills in effectively managing the apparel dollar.
- 3.5 Evaluate the factors influencing the apparel industry.
- 3.6 Determine opportunities and requirements for employment in the textile and apparel industry.

Standard 4.0 Family and Consumer Resource Management. The student shall develop management skills related to individual family and community resources.

- 4.1 Demonstrate management of individual and family resources, which includes food, clothing, housing, health care, recreation and transportation.
- 4.2 Demonstrate interpersonal relationship skills, which includes effective communication and conflict resolution.
- 4.3 Analyze consumer rights and responsibilities within the economic system.
- 4.4 Demonstrate management of financial resources to meet the goals of individuals and families across the life span.
- 4.5 Evaluate the impact of technology on individual and family resources.
- 4.6 Develop responsible behavior and skills that include decision making, goal setting and leadership.

Standard 5.0 Employability Skills. The student shall achieve competence in workplace readiness, career development and lifelong learning.

- 5.1 Student shall demonstrate problem-solving skills.
- 5.2 Student shall demonstrate critical thinking skills.
- 5.3 Student shall demonstrate the ability to speak, write and listen effectively.
- 5.4 Student shall demonstrate the ability to select, apply and maintain appropriate technology.
- 5.5 Student shall demonstrate leadership and teamwork skills.
- 5.6 Student shall demonstrate sound workplace ethics.
- 5.7 Student shall demonstrate the ability to effectively manage resources in high performance workplace.
- 5.8 Student shall demonstrate career planning and development skills.
- 5.9 Student shall demonstrate job-retention and lifelong-learning skills.
- Section 5. NAC 389.6529 Introduction to human *and family* development [and parenting. A course of study in an introduction to human development and parenting must include instruction designed to teach the pupil to:
 - 1. Describe how people nurture human development.
 - 2. Identify the stages of development and expectations of children, young adults and the elderly.

- 3. Describe how family life styles and values are often assumed by the generations that follow:
- 4. Demonstrate ways to develop positive interactions with children and adults.
- 5. Apply techniques for solving problems to organization of a group activity.
- 6. Identify the knowledge and skills required for obtaining a job in the area of human development.]

A course of study in an introduction to human and family development must include the following Family and Consumer Science Skill Standards:

Standard 1.0 Human and Family Development. The student shall examine principles and roles of family and human development.

- 1.1 Explore stages of development through the life span.
- 1.2 Explore the roles and responsibilities of parenting that maximize human growth and development.
- 1.3 Evaluate an effective family unit and how it impacts individuals.
- 1.4 Analyze factors affecting the decision to parent.
- 1.5 Utilize developmentally appropriate activities for young children.
- 1.6 Determine opportunities and requirements for employment in the child care industry.
- **Section 6. NAC 389.653** Introduction to *food science and* [foods and human] nutrition. A course of study in an introduction to foods and human nutrition must be designed to teach the pupil to:
 - 1. Demonstrate the use of utensils, tools and equipment in settings for the production and preparation of food.
 - 2. Demonstrate the management, planing, preparation and serving of meals for himself and others using available resources.
 - 3. Select foods necessary for a healthy diet.
 - 4. Describe health factors which influence dietary needs.
 - 5. Identify the knowledge and skills required to obtain a job in the area of food and human nutrition.

6. Demonstrate the analytical skills necessary to determine the suitability of obtaining for himself a career in the area of food and nutrition.]

A course of study in an introduction to food science and nutrition must include the following Family and Consumer Science Skill Standards:

Standard 2.0 Food Science and Nutrition. The student shall integrate knowledge, skills and practices in food science and nutrition.

- 2.1 Demonstrate food safety and sanitation practices.
- 2.2 Utilize nutrition principles and technology in food planning and preparation.
- 2.3 Apply management principles related to food and nutrition.
- 2.4 Demonstrate skills and procedures in food preparation and service
- 2.5 Demonstrate food science principles that affect food product quality.
- 2.6 Determine opportunities and requirements for employment in nutrition and the food industry.
- **Section 7.** NAC 389.6543 Introduction to *textile and apparel*. [basic textile design and construction. A course of study in an introduction to basic textile design and construction must include instruction designed to teach the pupil to:
 - 1. Describe the relationship that exists between the elements and principles of design.
 - 2. Analyze the psychological influence that color design has on people and their environment.
 - 3. Identify basic personal criteria for purchasing clothing and accessories, household furnishings and equipment.
 - 4. Describe combinations used in wardrobes and home furnishings.
 - 5. Relate the components of a well-constructed textile item to industrial standards for consumer apparel.
 - 6. Explain the information contained on the label of a piece of clothing, home furnishing and equipment.
 - 7. Describe the process used to produce fabric.
 - 8. Classify the current uses of textiles.

- 9. Identify natural and synthetic fibers.
- 10. Relate characteristics and performance of natural and synthetic fibers to their uses.
- 11. Describe clothing and textile care according to the properties of the fabric base, finish and construction.
- 12. Select textiles appropriate to a given use of purpose.
- 13. Apply basic techniques for fabric construction to a textile project.
- 14. Identify the knowledge and skills required for a job in the areas of textile design and construction.
- 15. Describe the potential for a career in the areas of clothing, textile and home decoration.]

A course of study in an introduction textile and apparel must include the following Family and Consumer Science Skill Standards:

Standard 3.0 Textiles and Apparel. The student shall integrate knowledge, skills and practices in textiles and apparel.

- 3.1 Demonstrate skills needed to produce, alter and repair textile products and apparel.
- 3.2 Evaluate the use and care of fiber, fabrics and textile materials.
- 3.3 Examine elements and principles of design in creating, constructing and altering textile products to enhance visual appearance.
- 3.4 Examine the consumer skills in effectively managing the apparel dollar.
- 3.5 Evaluate the factors influencing the apparel industry.
- 3.6 Determine opportunities and requirements for employment in the textile and apparel industry.

Section 8. NAC 389.624 Marketing. Career and Technical Education courses in Marketing Education must contain and meet the requirements of the Marketing Education Skill Standards as approved by the State Board of Occupational Education and Nevada Revised Statue. [A course of study in marketing must include instruction designed to teach the pupil to do the following:

- 1. Demonstrate knowledge of the purposes of marketing.
- 2. Understand the principles of selling.

- 3. Understand how to obtain a job in marketing and how to be promoted. 4. Recognize that good human relations within a business builds good public relations. 5. Handle inquiries and objections from customers. 6. Use a variety of effective approaches to selling. 7. Describe motives for buying. 8. Analyze the features and benefits of a product. 9. Demonstrate how to increase sales through suggestion and promotion. — 10. Demonstrate how to operate a cash register. 11. Letter a sign for a display, build a display and dress a mannequin. — 12. Interpret and calculate the costs of advertising. 13. Identify types of merchandise to advertise, and identify the primary medium for that advertising. 14. Create an advertisement. 15. Take an inventory using retail prices and codes for costs. — 16. Demonstrate how computers are used in business and industry. 17. Identify the characteristics of a potential shoplifter. — 18. Apply merchandising concepts. 19. Analyze factors influencing competition in a free enterprise system. 20. Analyze factors affecting supply and demand.
- 21. Distinguish between elastic and inelastic goods and services.
- 22. Develop goals for management by objectives.
- 23. Analyze the skills required to become a manager.
- 24. Identify components of the organization of a store.
- 25. Develop the skill to conduct a demonstration for sales.
- 26. Select proper security for a store.
- 27. Apply knowledge concerning insurance.
- 28. Understand the management of income.]

The following content standards have been identified for the Marketing Education Skill Standards: Economics, Business Management and Entrepreneurship, Distribution,

Financing, Marketing and Information Management, Pricing, Product Service Management, Promotion, Selling, and Employability.

For each content standard performance standards have been identified as follows:

Standard 1.0 Economics. Students will demonstrate an understanding of basic economic concepts, economic systems, cost-profit relationships, economic indicators/trends, and international concepts.

- 1.1 Basic concepts: Students will understand basic economic concepts.
- 1.2 Economic Systems: Students will understand the fundamental economic systems.
- 1.3 Cost-profit Relationships: Students will understand the basics of cost-profit relationships.
- 1.4 Economic Indicators and Trends: Students will understand basic economic indicators and trends.
- 1.5 International Concepts: Students will be introduced to international trade concepts.

Standard 2.0 Business Management and Entrepreneurship. Students will demonstrate an understanding of business fundamentals, use and application of technology, business risks, and basic management functions.

- 2.1 Students will demonstrate knowledge of marketing and its functions.
- 2.2Fundamentals: Students will understand the basics of business fundamentals, management functions, and entrepreneurship.
- 2.3 Technological Tools: Student will demonstrate competency in basic business computer skills.
- 2.4 Business Risks: Student will understand how risk management impacts business.

Standard 3.0 Distribution. Students will demonstrate an understanding of the basic channels of distribution, warehousing, inventory control, and transportation.

- 3.1 Students will understand the nature and scope of distribution as a marketing function.
- 3.2 Students will understand the basic concepts of order fulfillment.
- 3.3 Students will understand the basic concepts of warehousing and stock handling.

3.4 Students will understand the basic concepts of the management of distribution including inventory control and its relationship with other marketing activities.

Standard 4.0 Financing. Students will demonstrate an understanding of the nature and scope of financing and extending and obtaining business credit.

4.1 Students will understand the nature and scope of extending and obtaining business credit.

Standard 5.0 Marketing and Information Management. Students will demonstrate an understanding of various information management techniques, market research and development, information systems management, and planning and processing for business forecasting.

- 5.1 Students will have an understanding of the nature and scope of marketing-information management.
- 5.2 Students will understand how to gather information in order to determine markets.
- 5.3 Students will understand how to process and present information gathered through marketing-information management.
- 5.4 Students will be able to understand marketing plans and strategies for a product or service.

Standard 6.0 Pricing. Students will demonstrate an understanding of the process of establishing and communicating the value or cost of goods and services, the nature and scope of pricing concepts, and the strategies and outcomes of pricing.

6.1 Students will understand the nature and scope of the pricing function, the process of establishing and communicating the value or cost of goods and services, and determining prices.

Standard 7.0 Product Service Management. Students will demonstrate an understanding of the nature and scope of the product/service management function, quality assurance, product mix, positioning, and other retail product considerations.

- 7.1 Students will demonstrate an understanding of the nature and scope of the product/service management function.
- 7.2 Students will have an understanding of the importance of quality assurance.
- 7.3 Students will have an understanding of the concept of product mix.
- 7.4 Students will understand the concept of product and business positioning.
- 7.5 Students will recognize and understand other retail product considerations.

Standard 8.0 Promotion. Students will demonstrate an understanding of product and institutional promotion through: advertising, publicity/public relations, promotional sales, using product, services, and images and ideas to achieve a desired outcome.

- 8.1 Students will understand the nature and scope of promotion in marketing.
- 8.2 Students will understand the concept and purpose of advertising.
- 8.3 Students will understand the concept and purpose of publicity/public relations.
- 8.4 Students will understand the concept and purpose of sales promotion.
- 8.5 Students will understand the use of advertising agencies.

Standard 9.0 Selling. Students will demonstrate an understanding of the nature and scope of the functions associated with personal and business sales strategies, product knowledge, support activities, and management of selling techniques.

- 9.1 Student will understand the nature and scope of the selling function.
- 9.2 Students will understand the process and techniques of selling.
- 9.3 Students will understand how product knowledge relates to selling.
- 9.4 Students shall demonstrate an understanding of support activities as they relate to selling.

Standard 10.0 Students shall achieve competence in workplace readiness, career development, and lifelong learning.

- 10.1 Student shall demonstrate problem-solving skills.
- 10.2 Student shall demonstrate critical thinking skills.
- 10.3 Student shall demonstrate the ability to speak, write and listen effectively.

- 10.4 Student shall demonstrate the ability to select, apply and maintain appropriate technology.
- 10.5 Student shall demonstrate leadership and teamwork skills.
- 10.6 Student shall demonstrate sound workplace ethics.
- 10.7 Student shall demonstrate the ability to effectively manage resources in high performance workplace.
- 10.8 Student shall demonstrate career planning and development skills.
- 10.9 Student shall demonstrate job-retention and lifelong-learning skills.