

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

LCB File No. R043-05

June 22, 2005

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §§1, 2 and 3, NRS 385.080 and 385.110.

A REGULATION relating to courses of study; revising the provisions governing courses of study relating to agriculture, natural resources and the management of wildlife; and providing other matters properly relating thereto.

Section 1. Chapter 389 of NAC is hereby amended by adding thereto a new section to read as follows:

A course of study in leadership, communication and policy relating to agriculture and natural resource sciences must be designed so that pupils meet the following performance standards by completion of the final course of instruction:

1. Recognize the importance and history of communications, leadership and policy relating to agriculture, including effects on consumer and producer markets, as demonstrated by the pupil's ability to:

(a) Determine the need for competent communications, leadership and policy relating to agriculture;

(b) Identify major changes in communications, leadership and policy relating to agriculture;

(c) Identify historical events in communications, leadership and policy relating to agriculture; and

(d) Explore the future of communications, leadership and policy relating to agriculture.

2. Characterize factors associated with leadership categories and styles, as demonstrated

by the pupil's ability to:

(a) Analyze various definitions of leadership;

(b) Investigate and discuss personal leadership development;

(c) Explain the relationship between leadership categories, human behavior and employment;

(d) Describe various leadership styles;

(e) Identify the qualities of successful leaders; and

(f) Identify the need for teamwork in group settings.

3. Recognize and apply various methods of research used in communications relating to agriculture, as demonstrated by the pupil's ability to:

(a) Identify basic research techniques; and

(b) Identify and apply effective interviewing techniques.

4. Develop effective verbal communication skills for use in occupational, social and civic settings, as demonstrated by the pupil's ability to:

(a) Explain the types and importance of verbal communication; and

(b) Demonstrate the principles of verbal communication.

5. Develop effective written communications skills for use in occupational, social and civic settings, as demonstrated by the pupil's ability to:

(a) Identify the types of written communication relating to agriculture;

(b) Demonstrate the basic skills of journalistic writing;

(c) Demonstrate the basic skills of group correspondence;

- (d) Demonstrate the basic skills of writing for employment;*
 - (e) Demonstrate the basic skills of technical writing; and*
 - (f) Demonstrate the basic skills of page layout and design.*
- 6. Identify various channels of mass media communication and apply its uses in the agricultural industry, as demonstrated by the pupil's ability to:*
- (a) Explore the importance and impact of mass media on the agricultural industry;*
 - (b) Use the internet in communication relating to agriculture; and*
 - (c) Develop print, broadcast and electronic media projects.*
- 7. Identify traits associated with a positive self-concept and relationships with others in occupational, social and civic settings, as demonstrated by the pupil's ability to:*
- (a) Discuss the importance and components of self-concept;*
 - (b) Demonstrate the importance of self-concept in social, occupational and civic settings;*
- and*
- (c) Compare diversity in relationships.*
- 8. Examine the developmental process of political and governmental policy issues relating to the agricultural industry, as demonstrated by the pupil's ability to:*
- (a) Demonstrate the principles of the effective management of meetings;*
 - (b) Investigate local and political agricultural policy issues;*
 - (c) Identify the steps of the political process;*
 - (d) Identify the various organizations involved in agricultural policy; and*
 - (e) Examine the legal and ethical aspects of agricultural policy.*
- 9. Recognize the importance of leadership skills, including interpersonal relations, group management and communication, as demonstrated by the pupil's ability to recognize traits of*

effective leaders and participate in leadership training by actively participating in Future Farmers of America.

10. Explain the relationship between a supervised agricultural experience and preparation for a career in natural resources and wildlife management, as demonstrated by the pupil's ability to engage actively in and manage a supervised agricultural experience in a manner that enables the pupil to develop skills for the workplace.

11. For the area of skills necessary to obtain employment, achieve competence in workplace readiness, career development and lifelong learning by demonstrating:

- (a) Skills necessary for solving problems;*
- (b) Skills of critical thinking;*
- (c) The ability to speak, write and listen effectively;*
- (d) The ability to select, apply and maintain appropriate technology necessary for a career;*
- (e) Skills of leadership and teamwork;*
- (f) An awareness of the ethical behavior appropriate for the workplace;*
- (g) The ability to manage effectively resources in the workplace;*
- (h) Skills necessary for the planning and development of a career; and*
- (i) Skills necessary for retention of a job and continuation of learning throughout a career.*

Sec. 2. NAC 389.516 is hereby amended to read as follows:

389.516 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 and natural resource sciences, which may include the courses of study described in NAC 389.520 to 389.536, inclusive ~~[]~~, *and section 1 of this regulation.*
4. The arts.
5. Business, which may include the courses of study described in NAC 389.543 to 389.555, 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. 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.

Sec. 3. NAC 389.532 is hereby amended to read as follows:

389.532 A course of study in management of wildlife *and natural resources* must include instruction designed ~~[to teach the pupil to do the following:~~

- ~~—1. Develop a knowledge of the management of game in local communities.~~
- ~~—2. Demonstrate a knowledge of the laws concerning game and fish.~~
- ~~—3. Develop a knowledge of pollution as it relates to types of wildlife, the effect on wildlife and prevention and control of pollution.~~
- ~~—4. Recognize the importance of commercially raising and marketing fish and game.]~~ *so that*

pupils meet the following performance standards by the completion of the final course of instruction:

1. Identify the characteristics of soil, as demonstrated by the pupil's ability to:

- (a) Explore the chemical and biological interactions of soil; and*
- (b) Develop an appreciation for the conservation of soil.*

2. Examine the sources and distribution of water resources, as demonstrated by the pupil's ability to:

- (a) Comprehend and explain the hydrological cycle;*
- (b) Explain the factors contributing to the quality of water; and*
- (c) Investigate the basis of monitoring water.*

3. Understand air quality as it relates to natural resource systems, as demonstrated by the pupil's ability to:

- (a) Investigate the composition of the atmosphere; and*
- (b) Explore major issues affecting the quality of air and associated monitoring techniques.*

- 4. Examine the interaction between energy resources and the ecosystems, as demonstrated by the pupil's ability to:*
- (a) Recognize the types and importance of energy resources; and*
 - (b) Explore the relationship between the development and use of energy and the ecosystem.*
- 5. Examine minerals in Nevada and the socioeconomic impact of those minerals, as demonstrated by the pupil's ability to:*
- (a) Develop an appreciation for the mineral resources in Nevada;*
 - (b) Examine the relationship between the development of minerals and the management of natural resources; and*
 - (c) Examine the development of minerals as it relates to cultural resources and socioeconomics in Nevada.*
- 6. Examine vegetation resources in Nevada, as demonstrated by the pupil's ability to:*
- (a) Examine plant biology;*
 - (b) Identify the characteristics of plant communities and the associated dynamics of those communities;*
 - (c) Explore the agricultural vegetation in Nevada; and*
 - (d) Investigate the basis of standards and monitoring for vegetation.*
- 7. Explore the science of management of the range, as demonstrated by the pupil's ability to:*
- (a) Identify the components of managing a range;*
 - (b) Examine the nutrition for animals managed on a range;*
 - (c) Determine the factors affecting the carrying capacity of rangelands and compare and contrast among the various grazing systems;*

- (d) Investigate the factors contributing to the ecology of a range;*
 - (e) Investigate practices for manipulating the vegetation of a range; and*
 - (f) Investigate the principles involved in monitoring the inventory of a range.*
- 8. Understand forest ecology, as demonstrated by the pupil's ability to develop a historical and regional perspective of the resources of a forest and opportunities for future management of a forest.*
- 9. Investigate fish and wildlife ecology, as demonstrated by the pupil's ability to:*
- (a) Differentiate among the various categories of wildlife and explore the importance and distribution of fish and wildlife resources in Nevada;*
 - (b) Examine wildlife and aquatic ecology;*
 - (c) Investigate the relationship between uplands and riparian habitats;*
 - (d) Examine the federal Endangered Species Act of 1973, 16 U.S.C. §§ 1531 et seq., and its implementation; and*
 - (e) Investigate the basis of wildlife and aquatic monitoring.*
- 10. Understand the dynamics of fire ecology, as demonstrated by the pupil's ability to:*
- (a) Explore the effects of fire on the ecosystem; and*
 - (b) Explore the cycle of a fire and examine fire as a tool for the management of the rangeland ecosystem.*
- 11. Understand outdoor recreation and its importance to natural resources, as demonstrated by the pupil's ability to explore the opportunities associated with outdoor recreation.*
- 12. Explore outdoor safety and survival skills, as demonstrated by the pupil's ability to examine the proper response to outdoor emergency situations.*

13. Understand the importance and application of global positioning systems and geographic information systems in the management of natural resources, as demonstrated by the pupil's ability to investigate those systems and their applications.

14. Recognize the importance of leadership skills, including interpersonal relations, group management and communication, as demonstrated by the pupil's ability to recognize traits of effective leaders and participate in leadership training by actively participating in Future Farmers of America.

15. Explain the relationship between a supervised agricultural experience and preparation for a career in management of wildlife and natural resources, as demonstrated by the pupil's ability to engage actively in and manage a supervised agricultural experience in a manner that enables the pupil to develop skills for the workplace.

16. For the area of skills necessary to obtain employment, achieve competence in workplace readiness, career development and lifelong learning by demonstrating:

- (a) Skills necessary for solving problems;*
- (b) Skills of critical thinking;*
- (c) The ability to speak, write and listen effectively;*
- (d) The ability to select, apply and maintain appropriate technology necessary for a career;*
- (e) Skills of leadership and teamwork;*
- (f) An awareness of the ethical behavior appropriate for the workplace;*
- (g) The ability to manage effectively resources in the workplace;*
- (h) Skills necessary for the planning and development of a career; and*
- (i) Skills necessary for retention of a job and continuation of learning throughout a career.*