

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

LCB File No. R236-03

January 15, 2004

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

AUTHORITY: §§1-3, NRS 385.080.

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

A course of study in residential building construction must be designed so that pupils meet the following performance standards by the completion of an advanced program of instruction:

1. For the area of mathematics used in construction, blueprints, and the use of tools and equipment, a pupil shall demonstrate the ability to:

(a) Understand and apply mathematics for practical use in:

(1) Carpentry;

(2) Residential plumbing;

(3) Residential wiring; and

(4) Masonry and concrete placement; and

(b) Interpret and apply information from blueprints, and schedules and specifications used in the residential construction trades.

2. For the area of safe practices and proper use of equipment and tools, a pupil shall demonstrate the ability to:

(a) Adhere to general shop and job-site safety rules, including, without limitation, rules governing safety apparel, hazardous materials, fire safety, tools, equipment and other apparatus, including protection devices for falls; and

(b) Maintain and safely use hand tools and power tools.

3. For the area of site preparation, a pupil shall demonstrate the ability to:

(a) Understand the proper use of layout and measurement tools used in residential construction and excavation processes;

(b) Properly use layout and measurement tools; and

(c) Identify methods of excavation, compaction and backfill processes commonly used for residential construction.

4. For the area of foundations, a pupil shall demonstrate the ability to:

(a) Understand layout techniques;

(b) Interpret construction drawings to layout locations and elevations of concrete and masonry structural elements and reinforcements;

(c) Apply forming techniques in accordance with accepted industry standards;

(d) Apply techniques for placing concrete; and

(e) Lay masonry units according to plans and specifications.

5. For the area of carpentry, a pupil shall demonstrate the ability to:

(a) Understand carpentry techniques;

(b) Layout and construct floor systems according to plans and specifications;

(c) Layout, construct and raise wall assemblies according to plans and specifications;

(d) Layout, construct and install roof framing systems according to plans and specifications;

- (e) Layout, cut and install interior finish materials;*
 - (f) Apply techniques for the installation of exterior finish materials;*
 - (g) Apply techniques for the installation of doors and windows;*
 - (h) Install thermal insulation and vapor barriers; and*
 - (i) Install a roofing system, including, without limitation, underlayments, drip edging, flashing and shingles.*
- 6. For the area of plumbing, a pupil shall demonstrate the ability to:*
- (a) Understand the plumbing system for a single-family residence in accordance with accepted industry standards;*
 - (b) Layout the locations of plumbing fixtures and components, and complete a rough and top out installation of:*
 - (1) Water piping in a single-family residence; and*
 - (2) Drain waste vent piping in a single-family residence; and*
 - (c) Install fixtures required for the completion of the water supply and drain waste vent systems of a single-family residence.*
- 7. For the area of electrical systems, a pupil shall demonstrate the ability to:*
- (a) Understand the electrical system for a single-family residence in accordance with accepted industry standards;*
 - (b) Install service equipment, junction and device boxes, conduits, cables and conductors required for a complete residential electrical installation; and*
 - (c) Select and install switches and receptacles and terminate conductors to devices.*

8. For the area of skills necessary to obtain employment, a pupil shall 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) An 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 389.538, 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 ~~and~~ *and section 1 of this regulation.*
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 389.672 is hereby amended to read as follows:

389.672 1. A board of trustees may allow a pupil to earn, towards the units necessary for graduation from high school, two units of the credit required in English, one unit required in mathematics, one unit required in science and one-half unit required in health if he is enrolled in

one of the following occupational courses of study and that course of study includes as part of its curriculum the curriculum of the required course:

- (a) Agriculture and natural resource sciences.
- (b) Business.
- (c) Occupational education in cooperation with a private employer.
- (d) Occupations described in NAC 389.572 to 389.584, inclusive.
- (e) Occupations in trade and industry described in NAC 389.586 to 389.618, inclusive ~~and~~ *and*

section 1 of this regulation.

- (f) Family and consumer sciences.
- (g) Industrial arts.
- (h) Marketing.
- (i) Skills needed to obtain employment.

2. The superintendent of the school district shall appoint a committee composed of one person certified to teach in the occupational course of study and one person certified to teach in the academic area in which the credit may be earned. The committee must verify to the board of trustees that the curriculum for the occupational course of study includes the curriculum of the required course of study.

3. After verification has been received by the board of trustees, the written curriculum and title of the course of study and a statement of the academic credit to be granted must be submitted to the State Board of Education for approval. Academic credit may be granted for the occupational course of study or combination of courses only after the State Board of Education has given its approval.

4. The Superintendent of Public Instruction may give approval for the granting of academic credit to a board of trustees requesting to use a curriculum for a course of study that has been approved by the State Board of Education for another school district, if:

(a) The procedures set forth in subsection 2 were followed by the requesting district; and

(b) The board of trustees provides assurances that it will not deviate from the curriculum that has been approved by the State Board.

5. A pupil who earns academic credit pursuant to this section must be notified that the approval for academic credit is designed to meet the requirements for graduation from high school and may not be accepted for academic credit by a specific postsecondary institution. A copy of the notification given to the pupil must accompany the other materials to be submitted to the State Board of Education for final approval.

6. A minimum number of credits must be earned in the respective academic areas, as follows:

(a) At least one credit must be earned in the academic mathematics department;

(b) At least one credit must be earned in the academic science department; and

(c) At least two credits must be earned in the academic English department.