

High Stakes Credentialing for High School Career and Technical Education Students in Virginia

Virginia's Approach

The State Board of Education in Virginia has approved 175 credentials for 72 different career and technical education (CTE) courses and/or course sequences. Credentials have been defined as (1.) a complete industry certification program (e.g., Certified Nursing Assistant, CNA), (2.) a “pathway” examination that leads to a completed industry certification (e.g., automotive technician examinations from ASE), (3.) a state issued professional license (e.g., Cosmetology), and (4.) an occupational competency examination (e.g., assessments from the National Occupational Competency Institute, NOCTI).

Credentials were used for awarding student-selected verified credit—required for graduation (standard or advanced studies diploma) for the first time in 2004. Students in Virginia earn two types of credit during high school. Standard credit is based on hours of instruction and successful completion of the course. Verified credit is based on standard credit plus a passing score on an end-of-course Standards of Learning (SOL) test, or other Board of Education approved substitute test.

To be eligible for the standard diploma, students must earn the minimum standard credits as well as six verified credits. Several of those verified credits can be earned in a career and technical education course or course sequence by passing a credential approved by the State Board of Education. One student-selected verified credit can be earned in a career and technical education course that offers one standard credit, and at least two can be earned if the student is a “completer” in a career and technical education program sequence offering two or more standard credits (concentration or specialization, etc.).

For Virginia’s advanced studies diploma, students must earn nine verified credits. One of the verified credits may be earned in a career and technical education program by passing the course/course sequence and achieving an approved CTE credential.

Selected credentials are also used for earning a Board of Education seal on students’ high school diplomas. The Virginia Board of Education has created two diploma seals of achievement. One is a career and technical education seal, and the other is an advanced mathematics and technology seal.

For students to earn a career and technical education seal, they must meet the following requirements:

- Fulfill requirements for either a standard or advanced diploma;
- Complete a prescribed sequence of courses in a career and technical education concentration or specialization (program sequence); and

- Maintain a “B” or better grade average in CTE courses, or pass a Board-approved industry certification exam, or acquire a professional license in a CTE field.

Over fifty percent of the students who graduated in 2006 in Virginia and had completed a career and technical education program received the career and technical education seal on their diplomas.

For students to earn an advanced mathematics and technology seal, they must fulfill the requirements for either a standard or an advanced studies diploma and

- satisfy all mathematics requirements for the advanced studies diploma with a “B” average or better, and pass an exam that confers Board-approved industry certification in information technology, or
- pass a Board-approved examination that confers college-level credit in a technology or computer science area.

In identifying approved credentials, the Virginia Board of Education approves only those examinations that meet the following criteria:

- They must prepare students for an occupation or occupational area.
- They are knowledge-based, as opposed to performance-based. Credentials may contain a performance-based component, but it is not required.
- They must be in a career and technical education field that confers certification from a recognized industry, trade, or professional association or entity.
- They are administered on a multi-state or international basis.
- They are standardized and graded independent of the school in which the test is given.

All examinations for Board-approved credentials must be given by schools to students in a proctored environment. In using approved credentials for student-selected verified credit, career and technical education teachers must be certified in at least one credential that is being “targeted for instruction” in the program sequence(s) they are teaching. CTE teachers cannot take occupational competency examinations (NOCTI); therefore, they do not have to pass these specific credentials before their students can be eligible for verified credit.

Except where there are requirements by an issuing entity, Virginia does not require a CTE program to obtain a “program certification” that may be offered by a credentialing entity (e.g., NATEF automotive technology program certification, or ACCESS culinary certification) before students can be eligible for verified credit by passing an examination related to the specific credential.

Benefits of Credentialing

All Board-approved CTE credentials have value to the student as a resume element for obtaining entry-level positions in today's complex job market. Achieving recognized credentials proves CTE program alignment with business and industry standards and can be used to communicate to business and industry that students are gaining relevant skills and knowledge that directly relate to jobs in their career path. Achieving credentials that are recognized in the work place helps place students ahead of other candidates in the competition for entry-level positions.

Credentials can also provide opportunities for career and technical education program improvement through the use of national, state, and local normative data, which are specific to major topical areas of a CTE program. For example, using specific forms of occupational competency testing, normative data is updated on a periodic basis allowing for the specific evaluation and improvement of program objectives and instructional methods. Also, as CTE courses become more aligned with recognized industry standards, students have the opportunity to achieve a form of "credentialing" that provides external validation of students' attainment of recognized competencies in specific programs of study.

The State of Virginia believes that "external" credentialing provides the following major benefits to students:

- Evidence that the student has completed advance educational preparation by verifying competency in career and technical education skill areas that matter to business and industry,
- Increased job opportunities for advancement in a chosen career pathway, and
- Enhanced self-esteem for students because they have achieved a national occupational competency standard and/or standards recognized by business and industry.

Looking Ahead

Virginia has made significant progress since it began identifying industry certifications in 2001. In 2002, only twenty-two percent of Virginia students were enrolled in courses with the potential for achieving an industry certification. Consequently, a search for credible and appropriate credentials was expanded to include both industry certification "pathway" examinations and occupational competency assessments. In 2006, ninety-eight percent of program sequences in all CTE areas have at least one credential that can be "targeted"—for most program sequences there are several credentialing choices. Targeting a credential normally means that the skills sets represented by a specific credential can be integrated into (or added to) a course/course sequence if not already addressed by the essential competencies of that program.

As a result of an August 2006 industry certification survey of 136 school divisions and regional technical centers, 7,271 students were reported as having achieved an industry certification, or passed an industry certification “pathway” examination, or passed an occupational competency assessment from the National Occupational Competency Testing Institute (NOCTI) during the 2005-2006 school year.

As of October 1, 2006, the Virginia Department of Education has conducted over 100 industry certification training and/or testing academies/sessions to prepare and test career and technical education (CTE) teachers for selected industry certifications. A total of 2,323 teachers have participated, with 1,909 passing the related industry certification exam—70 teachers have exam results pending. Additional academies are being planned for the 2006-07 school year. Increased emphasis has been placed on “virtual online” academies in selected areas (24/7 access to Internet-based courseware). School divisions also reported in the August 2006 industry certification survey that 1,760 CTE teachers were certified in at least one industry certification. This was 65% the CTE teachers reported in the survey.

It is expected that Virginia will continue to use various forms of credentialing based on business and industry standards for the following reasons:

- So that all career and technical education program sequences can provide students the opportunity to earn student-selected verified credits for graduation;
- To provide increased employment opportunities for students through external credentialing that matters to business and industry;
- So that each CTE program can measure improvement by comparing student achievement to national occupational competency and/or business and industry standards;
- To provide tangible evidence to current employers, as well as to potential employers, that the state has a competitive, highly-skilled workforce; and
- To provide a foundation for greater industry support for those programs that link solid academic studies with a career focus.

While Virginia has been a national leader in aligning its career and technical education program to business and industry expectations through its use of CTE program frameworks and frequently updated essential competencies, it only makes sense to constantly review its essential competencies for each CTE program to see how they align with recognized “external” credentials (standards) such as industry certification exams, licensures, and occupational competency assessments. The achievement of these external credentials will allow students to gain a “stepping-stone” advantage in entering their chosen field of employment and/or in continuing their career preparation through higher education and/or post-secondary training.

As the current system of credentialing has only been in effect for a short period of time, there is not yet sufficient data to make a determination on whether the state will use credentialing as an accountability tool in the future to determine the effectiveness of a school's career and technical education program in a given area.

Questions about credentialing in Virginia should be directed to Gordon Creasy, Specialist for Industry Certification and Licensure, Office of Career and Technical Education, Virginia Department of Education at gordon.creasy@doe.virginia.gov, or 804-225-2057.