| **Virginia Board of Education Agenda Item** | **Seal of the Commonwealth of Virginia** |
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# Agenda Item: O

## Date: May 7, 2020

## Title: First Review of Revisions to the List of 2020-2021 Board of EducationApproved Industry Certifications, Occupational CompetencyAssessments, and Professional Licenses

**Presenter: Mr. George R. Willcox, Director, Operations and Accountability, Office of Career, Technical, and Adult Education**

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## Purpose of Presentation:

Action required by Board of Education regulation.

## Executive Summary:

The process for reviewing and validating industry credentials for the purpose of awarding verified credit is based on the following criteria: 1) the test must be standardized and graded independently of the school or school division in which the test is given; 2) the test must be knowledge based; 3) the test must be administered on a statewide, multistate or international basis, or administered as part of another state’s accountability assessment program; and 4) to be counted in a specific academic area, the test must measure content that incorporates or exceeds the *Standards of Learning* content in the course for which verified credit is given. Important to this process is ensuring that the credential is relevant and recognized in the workplace.

The **32** recommended industry or trade association certification examinations, professional licenses, and occupational competency assessments, meet the Board’s graduation requirements as identified for the Standard and Advanced Studies Diplomas in [8VAC20-131-50](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/) (effective for students entering ninth grade prior to the 2018-2019 school year) and the Board’s graduation requirements as identified for the Standard and Advanced Studies Diplomas in [8VAC20-131-51](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/) (effective with the students who enter the ninth grade in the 2018-2019 school year). Students shall earn the required standard and verified units of credit described in subdivision two of the appropriate subsection.

The industry credentials listed on pages I and J meet the criteria to satisfy requirements for the Career and Technical Education Seal, Seal of Advanced Mathematics and Technology, and Seal of Science, Technology, Engineering, Mathematics (STEM).

Industry or trade association certification examinations, professional licenses, and occupational competency assessments are continually being revised or discontinued to stay current with technology and new techniques. Industry Credentialing providers have discontinued **19** previously approved certification examinations. Certifications that are recommended for deletion from the Board-approved list can be found on pages J and K.

These changes may be such that individual certifications are no longer available or no longer meet the Board of Education’s criteria for the student-selected verified credit or the academic specific verified credit, the Standard Diploma’s Career and Technical Education credential or the additional requirements for graduation in accordance with the Standards of Quality, and the diploma seals awards for exemplary student performance in Career and Technical Education, Advanced Mathematics and Technology, and STEM.

This Board item aligns with Board of Education Priority 1 – provide high-quality, effective learning environments for all students.

## Action Requested:

Other. Specify below:

The Board is requested to waive first review and approve the 32 additions to the Board of Education Approved Industry Certifications, Occupational Competency Assessments, and Professional Licenses and remove 19 previously approved credentials.

Generally, the Board reviews the list of industry credentials at its March and April meetings in order for the credentials to be made available to schools divisions by June 1 of each year. Following the Board approval, the new credentialing list must be updated in VERSO, the state’s online repository of CTE courses and credentials. The details about each new credentials including test and accommodations must be published. Once published in June, it gives school divisions the opportunity to review the new credentials and courses for the following school year and make adjustments in their learning management systems.

## Superintendent’s Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the 32 new industry certification examinations, occupational competency assessments, and professional licenses to meet the Board of Education’s requirements for (1) graduation effective for the students who entered ninth grade prior to the 2018-2019 school year, (2) requirements for graduation effective with the students who enter the ninth grade in the 2018-2019 school year, and (3) requirements for the Career and Technical Education, Advanced Mathematics and Technology, and STEM Seals. Further, it is recommended the Board approve the removalof 19 credentials which are no longer offered by the providers.

## Rationale for Action:

The Board’s action is required to remain in compliance with the *Regulations Establishing Standards for Accrediting Public Schools in Virginia.*

## Previous Review or Action:

Previous review and action. Specify date and action taken below:

Dates: September 28, 2000; April 26, 2001; April 24 & 25, 2002; May 28, 2003; June 25, 2003; February 25, 2004; February 23, 2005; November 30, 2005; November 29, 2006;

January 10, 2008; January 15, 2009; January 14, 2010; February 17, 2011; May 24, 2012;

June 27, 2013; April 24, 2014; April 23, 2015; April 28, 2016; May 25, 2017; April 26, 2018;

and April 25, 2019.

Action: Technical changes, additions, and/or deletions were approved to the list of Board-approved certification examinations, assessments, and licenses.

* Currently, there are 447 [Board-Approved](http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/cte_credentials/protected-industry-certifications-2018.docx) industry or trade association certification examinations, professional licenses, and occupational competency assessments.

## Background Information and Statutory Authority:

The [Profile of a Virginia Graduate](http://www.doe.virginia.gov/instruction/graduation/profile-grad/index.shtml) illustrates the knowledge, skills, experiences and attributes that students must obtain to be successful in college and/or the work force and to be “life ready,” and provides the framework for the requirements students must meet to earn a Standard Diploma or Advanced Studies Diploma.

The 2012 General Assembly passed, and the Governor signed into law, [HB 1061](https://leg1.state.va.us/cgi-bin/legp504.exe?121+ful+CHAP0454) and [SB 489](https://leg1.state.va.us/cgi-bin/legp504.exe?121+ful+CHAP0642), to strengthen postsecondary education and workplace readiness opportunities for all students. The legislation says, in part:

“Beginning with first-time ninth grade students in the 2013-2014 school year, requirements for the standard diploma shall include a requirement to earn a career and technical education credential that has been approved by the Board, that could include, but not be limited to, the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.”

The 2016 General Assembly approved, and the Governor signed, [HB 895](https://leg1.state.va.us/cgi-bin/legp504.exe?161+ful+CHAP0750) and [SB 336](https://leg1.state.va.us/cgi-bin/legp504.exe?161+ful+CHAP0720) pertaining to high school graduation requirements. The legislation says, in part that:

“Beginning with first-time ninth grade students in 2018-2019, graduation requirements shall include a requirement that students either (i) complete an Advanced Placement, honors, or International Baccalaureate course or (ii) earn a career and technical education credential that has been approved by the Board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to earn credit. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness skills assessment.”

Because of the emphasis and integral relationship of the career and technical education credentials to the requirements for students to earn a Standard Diploma or Advanced Studies Diploma the Virginia Department of Education evaluates, on an on-going basis, the industry credentials against prescribed criteria for these graduation requirements.

The following statutory authority materials exhibit the importance and relevance of the career and technical education credentials to the graduation requirements.

The *Regulations Establishing Standards for Accrediting Public Schools in Virginia*, [8 VAC20-131-50.](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50), Requirements for Graduation (Effective for the Students Entering Ninth Grade Prior to the 2018-2019 School Year).

[*8 VAC20-131-50.B.2*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/)*. Requirements for a Standard Diploma – Footnotes 5, 6, and 8*

The requirements for a student to earn a diploma and graduate from a Virginia high school shall be those in effect when that student enters the ninth grade for the first time.

Beginning with the ninth-grade class of 2013-2014 and through the ninth-grade class of 2017-2018, students shall earn the required verified units of credit related to the career and technical education industry credentials as follows:

*5 “A student may utilize additional tests for earning verified credit in computer science, technology, career and technical education, economics or other areas as prescribed by the board in* [*8VAC20-131-110*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section110/)*.”*

*6 “Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for (i) the student-selected verified credit and (ii) either a science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.”*

*8 “Students shall earn a career and technical education credential approved by the Board of Education, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.”*

[*8 VAC20-131-50. C.2*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/)*. Requirements for an Advanced Studies Diploma - Footnotes 6*

*6 “A student may utilize additional tests for earning verified credit in computer science, technology, career or technical education, economics or other areas as prescribed by the board in* [*8VAC20-131-110*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section110/)*.”*

[*8 VAC20-131-110.C*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section110/) *– Standard and Verified Units of Credit*

*“The board may from time to time approve additional tests for the purpose of awarding verified credit. Such additional tests, which enable students to earn verified units of credit, must, at a minimum, meet the following criteria:*

*1. The test must be standardized and graded independently of the school or school division in which the test is given;*

*2. The test must be knowledge based;*

*3. The test must be administered on a statewide, multistate, or international basis, or administered as part of another state's accountability assessment program; and*

*4. To be counted in a specific academic area, the test must measure content that incorporates or exceeds the Standards of Learning content in the course for which verified credit is given.*

[*8 VAC20-131-50. H. 3*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/) *– Awards for exemplary student performance*

*Students who demonstrate academic excellence and outstanding achievement may be eligible for the career and technical education awards:*

*3.“The Board of Education's Career and Technical Education Seal shall be awarded to students who earn a Standard Diploma or an Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses; or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The board shall approve all professional licenses and examinations used to satisfy these requirements.”*

[*8 VAC20-131-50*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/)and [*8 VAC20-131-51*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/) *– Awards for exemplary student performance*

*The Board of Education's Seal for Science, Technology, Engineering and Mathematics (STEM) shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all Math and Science requirements for the Advanced Studies diploma with a “B” average or better in all course work; and (ii) successfully complete a 50 hour or more work-based learning opportunity in a STEM area; and (iii) satisfy all requirements for a Career and Technical Education concentration (A concentration is a coherent sequence of two or more state-approved courses as identified in the course listing within the* [*CTE Administrative Planning Guide*](http://cteresource.org/apg/)*); and (iv) pass one of the following: (a) a Board of Education CTE STEM-H credential examination, or (b) an examination approved by the Board that confers a college-level credit in a STEM field. NOTE: This seal was established by* [*House Bill 167*](http://lis.virginia.gov/cgi-bin/legp604.exe?181+ful+CHAP0482) *(2018) to replace the Board’s Seal of Advanced Mathematics and Technology. This seal is available to graduating seniors in the Class in 2019 and beyond. The Board’s Seal of Advanced Mathematics and Technology remains available to students that entered the ninth grade prior to the 2018-2019 school year.*

[*8 VAC20-131-50. H. 4*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section50/) *– Awards for exemplary student performance*

*4. “The Board of Education's Seal of Advanced Mathematics and Technology shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies Diploma (four units of credit including Algebra II; two verified units of credit) with a "B" average or better; and (ii) either (a) pass an examination in a career and technical education field that confers certification from a recognized industry, trade, or professional association; (b) acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or (c) pass an examination approved by the board that confers college-level credit in a technology or computer science area. The board shall approve all professional licenses and examinations used to satisfy these requirements.”*

The *Regulations Establishing Standards for Accrediting Public Schools in Virginia*, [8 VAC20-131-51.](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/), Requirements for Graduation (Effective with the Students Who Enter the Ninth Grade in the 2018-2019 School Year)

[*8 VAC20-131-51. B. 2*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/)*. Requirements for a Standard Diploma*

The requirements for a student to earn a diploma and graduate from a Virginia high school shall be those in effect when that student enters the ninth grade for the first time.

Beginning with the ninth-grade class of 2018-2019 and beyond, students shall earn the required verified units of credit related to the career and technical education industry credentials as follows:

*“Students who complete a career and technical education program sequence and pass an examination or occupational competency assessment in a career and technical education field that confers certification or an occupational competency credential from a recognized industry, or trade or professional association, or acquire a professional license in a career and technical education field from the Commonwealth of Virginia may substitute the certification, competency credential, or license for either a laboratory science or history and social science verified credit when the certification, license, or credential confers more than one verified credit. The examination or occupational competency assessment must be approved by the board as an additional test to verify student achievement.”*

*“In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the standard diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.”*

[*8 VAC20-131-51. C.2*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/)*. Requirements for an Advanced Studies Diploma*

The requirements for a student to earn a diploma and graduate from a Virginia high school shall be those in effect when that student enters the ninth grade for the first time. Beginning with the ninth-grade class of 2018-2019 and beyond, students shall earn the required verified units of credit related to the career and technical education industry credentials as follows:

*“In accordance with the Standards of Quality, students shall either (i) complete an Advanced Placement, honors, or International Baccalaureate course, or (ii) earn a career and technical education credential approved by the board, except when a career and technical education credential in a particular subject area is not readily available or appropriate or does not adequately measure student competency, in which case the student shall receive satisfactory competency-based instruction in the subject area to satisfy the advanced studies diploma requirements. The career and technical education credential, when required, could include the successful completion of an industry certification, a state licensure examination, a national occupational competency assessment, or the Virginia workplace readiness assessment.”*

[*8 VAC20-131-51. B. 2*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/)*…A "verified unit of credit" or "verified credit" is a credit awarded for a course in which a student earns a standard unit of credit and (i) achieves a passing score on a corresponding end-of-course SOL test; (ii) achieves a passing score on an additional test, as defined in* [*8VAC20-131-5*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section5/) *as part of the Virginia Assessment Program; (iii) meets the criteria for the receipt of a locally awarded verified credit conferred in accordance with board criteria and guidelines as provided in* [*8VAC20-131-110 B 3*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section110/) *when the student has not passed a corresponding SOL test in English, mathematics, laboratory science, or history and social science; or (iv) meets the criteria for the receipt of a verified credit for English (writing) by demonstrating mastery of the content of the associated course on authentic performance assessments as provided in* [*8VAC20-131-110 B 4*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section110/)*.*

*No more than one locally awarded verified credit may be used to satisfy these requirements, except as provided in subdivision 3 of this subsection for credit accommodations for students with disabilities.*

[*8 VAC20-131-51. H. 3*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/) *– Awards for exemplary student performance.*

*Students who demonstrate academic excellence and outstanding achievement may be eligible for a career and technical education awards:*

*3.“The Board of Education's Career and Technical Education Seal shall be awarded to students who earn a Standard Diploma or an Advanced Studies Diploma and complete a prescribed sequence of courses in a career and technical education concentration or specialization that they choose and maintain a "B" or better average in those courses; or (i) pass an examination or an occupational competency assessment in a career and technical education concentration or specialization that confers certification or occupational competency credential from a recognized industry, trade or professional association or (ii) acquire a professional license in that career and technical education field from the Commonwealth of Virginia. The board shall approve all professional licenses and examinations used to satisfy these requirements.”*

[*8 VAC 20-131-51. H. 4*](https://law.lis.virginia.gov/admincode/title8/agency20/chapter131/section51/) *– Awards for exemplary student performance*

*4. “The Board of Education's Seal of Advanced Mathematics and Technology shall be awarded to students who earn either a Standard Diploma or an Advanced Studies Diploma and (i) satisfy all of the mathematics requirements for the Advanced Studies Diploma with a "B" average or better and (ii) pass an examination in a career and technical education field that confers certification from a recognized industry, trade, or professional association; acquire a professional license in a career and technical education field from the Commonwealth of Virginia; or pass an examination approved by the board that confers college-level credit in a technology or computer science area. The board shall approve all professional licenses and examinations used to satisfy these requirements.”*

## Timetable for Further Review/Action:

After Board approval, a Superintendent’s Memorandum will notify school divisions of the technical changes and additions to and deletions from the list of industry certifications, occupational competency assessments, and licenses and will be posted on the Virginia Department of Education Web site.

## Impact on Fiscal and Human Resources:

State funds will be used to assist students to become certified. Federal Perkins CTE funds may be used to help teachers, programs, and students become certified.

### ADDITIONS

#### Agricultural Education

1. Beef Quality Assurance Examination (Virginia Cooperative Extension/VT ASPC)
2. Chesapeake Bay Landscape Professional, Associate (CBLP-A) Examination (Chesapeake Conservation Landscaping Council)
3. Ecology Conservation & Management Certification Examination (Ducks Unlimited (DU))

#### Business and Information Technology

1. Certified Entry-Level Python Programmer (PCEP) Examination (OpenEDG Python Institute)
2. Communication Skills for Business Examination (Certiport)
3. Cyber Forensics Associate Examination (EC-Council)
4. Ethical Hacking Associate Examination (EC-Council)
5. Microsoft 365 Fundamentals Examination (Microsoft)
6. Microsoft Certified Azure Fundamentals Examination (Microsoft)
7. Microsoft Certified Educator Examination \*\* Teacher ONLY \*\* (Microsoft)
8. Microsoft Dynamics 365 Fundamentals Examination (Microsoft)
9. Personal Financial Literacy Certification Examination (Center for Financial Responsibility (CFR))

#### Health and Medical Sciences Education

1. Certified Group Fitness Instructor Examination (Athletics and Fitness Association of America)

#### Marketing

1. Business of Retail: Operations & Profit Examination (NRF Foundation)
2. Entrepreneurship and Small Business Examination (Intuit)

#### Technology Education

1. Additive Manufacturing Fundamentals Examination (ToolingU-SME)
2. Business Certificate for Manufacturing Examination (Manufacturing Skills Institute)
3. Certified Robot Operator 1 Assessment (FANUC America Corporation)
4. Laboratory Technician 1 Examination (Manufacturing Skills Institute)
5. Pre-Manufacturing Technician 1 (PreMT1) Examination (Manufacturing Skills Institute)
6. Rapid Prototyping & 3D Design Beginner Certification Examination (Digital Quest)

#### Trade and Industrial Education

1. Cisco Certified CyberOps Associate Examination (Cisco Systems, Inc.)
2. Cisco Certified DevNet Associate Examination (Cisco Systems, Inc.)
3. Cisco Certified Networking Associate (CCNA) Examination (Cisco Systems, Inc.)
4. Cisco Certified Networking Professional (CCNP) Automation for Cisco Enterprise Solutions Examination (Cisco Systems, Inc.)
5. Cisco Certified Networking Professional (CCNP) Cisco Enterprise Networks Examination (Cisco Systems, Inc.)
6. Cisco Certified Networking Professional (CCNP) Cisco SD-WAN Solutions Examination (Cisco Systems, Inc.)
7. Cisco Certified Networking Professional (CCNP) Designing Enterprise Wireless Networks Examination (Cisco Systems, Inc.)
8. Cisco Certified Networking Professional (CCNP) Enterprise Advanced Routing and Services Examination (Cisco Systems, Inc.)
9. Cisco Certified Networking Professional (CCNP) Enterprise Network Core Technologies Examination (Cisco Systems, Inc.)
10. Cisco Certified Networking Professional (CCNP) Implementing Enterprise Wireless Networks Examination (Cisco Systems, Inc.)
11. Principles of Small Engine Technology Certification Examination (Equipment & Engine Training Council (EETC))

### DELETIONS

**(Credentials discontinued by providers)**

#### Agricultural Education

1. Agricultural Business and Management Examination (Precision Exams)

#### Business and Information Technology

1. Apple Certified Pro Examination (Apple Inc.)
2. Apple Certified iOS Technician Examination (Apple Inc.)
3. Apple Certified Mac Technician Examination (Apple Inc.)
4. Certified Internet Web (CIW) Mobile Application Developer Examination (Certification Partners, LLC)
5. Certified Internet Web (CIW) Multimedia Specialist Examination (Certification Partners, LLC)
6. Certified Internet Web (CIW) Perl Specialist Examination (Certification Partners, LLC)
7. Software Development Certification Tests (Pass any one test) (Brainbench)
8. Systems Administration Certification Tests (Pass any one test) (Brainbench)
9. Web Administration Certification Tests (Pass any one test) (Brainbench)

#### Family and Consumer Sciences

1. ManageFirst Credentialing Examinations (National Restaurant Association)
2. Skills, Tasks and Results Training (START) Certification Examination (Hotel and Lodging Educational Institute (AHLEI)

#### Marketing

1. Advanced Customer Service and Sales Certification Assessment (NRF Foundation)

#### Trade and Industrial Education

1. Cisco Certified Entry Networking Technician (CCENT) Examination (Cisco Systems, Inc.)
2. Cisco Certified Networking Associate (CCNA) Cyber Ops Examination (Cisco Systems, Inc.)
3. Cisco Certified Networking Associate (CCNA) Routing & Switching Examination (Cisco Systems, Inc.)
4. Cisco Certified Networking Associate (CCNA) Security Examination (Cisco Systems, Inc.)
5. Cisco Certified Networking Professional (CCNP) Routing and Switching Examination (Must pass all 3 exams) (Cisco Systems, Inc.)
6. Cisco Certified Networking Professional (CCNP) Security Examination (Cisco Systems, Inc.)