Tennessee Promoted Student Industry Credentials

Tennessee Department of Education

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Executive Summary

In Tennessee, workforce development through high-quality career and technical education (CTE) programs and training is critical to our long-term success as a state. Alignment across the complex education and workforce development systems, including the validation of workplace competencies and skills through industry credentialing, must be prioritized. Historically, however, industry certifications, certificates, and other credentials have not been clearly defined, aligned to coursework or training programs, or accessible to students making it difficult to attain the credentials needed for workplace readiness and success.

To mitigate these risks and more closely align with the needs of Tennessee business and industry, the Tennessee Department of Education (TDOE) has revised the process to review and promote industry credentials for K-12 students. The newly designed process establishes clear criteria to promote an industry credential statewide and allows for industry credentials to be submitted for review by representatives of secondary, postsecondary, workforce, and other governmental agencies. If approved, the industry credential would be categorized into one of three tiers – **Recognized**, **Valued**, or **Preferred** – and promoted for use in K-12 schools and across Tennessee's broader educational and workforce systems.

This report provides an overview of the redesigned industry credential approval process, establishes definitions, outlines results of submission reviews, and details the 2020-22 Tennessee Promoted Industry Credential List.

Key Findings

- During the 2020-21 industry credential submission window, 133 credentials were submitted for review representing all 16 nationally CTE Career Clusters.
- No credentials were submitted as a Special Industry Credential and/or identified as special industry credential to support a local industry.
- There were 78 un-duplicated credentials identified in the previous "2018-19 Promoted Student Industry Certification List." These credentials were also reviewed using the new criteria and review process.
- After review of all submitted and previously approved credentials on the 2018-19 Promoted Student Industry Certification List, a total of **157 industry credentials were approved and included in the 2020-22 Tennessee Promoted Industry Credential List**.
- Of the 157 industry credentials identified on the 2020-22 Tennessee Promoted Industry Credential List, 33 were identified as Recognized, 45 were identified as Valued, and 79 were identified as Preferred.

Background

It is the mission of the Tennessee Department of Education (TDOE) to "set all students on a path to success" and for many Tennessee students, career and technical education (CTE) serves as that pathway. CTE programs develop key employability and technical skills while providing opportunities for students to demonstrate readiness through the attainment of industry credentials, work-based learning experiences, and/or the attainment of postsecondary credit hours through early postsecondary opportunities (EPSOs).

More specifically, industry certifications, and the broader term **industry credentials**, have been highly discussed in Tennessee K-12 schools and postsecondary institutions for several years. Industry credentials are often used as a measure of quality in Tennessee CTE programs and validate the technical skill and competencies students have acquired through their chosen CTE program. Additionally, industry credentials factor into Tennessee's school and district accountability framework under the Every Student Succeeds Act (ESSA) as part of the college and career readiness indicator, "Ready Graduate."

The reauthorization of the Strengthening Career and Technical Education for the 21st Century Act, otherwise known as Perkins V, again highlighted the importance of industry credentialing in Tennessee CTE programs. In 2019, various focus group meetings were conducted to draft the Perkins V Tennessee State Plan. During this process, it was determined that a specific statewide strategy should be included in the State Plan to focus on industry credential alignment and attainment:

- Revise the statewide promoted student industry certification process and criteria to fully align with the Tennessee Higher Education Commission (THEC), Tennessee Board of Regents (TBR), Tennessee Department of Labor and Workforce Development (TDLWD) and others, to increase postsecondary articulation and the ability for students to earn stackable certifications, credentials, and degrees in high skill, high wage, and in-demand career pathways.

TDOE began conversations with these and additional state agencies, secondary, postsecondary, and workforce partners in the fall of 2019 and continued through spring 2020. Using much of the national, short-term credentialing research conducted by the Lumina Foundation[1], a revised industry credential review process, with updated criteria and definitions, was developed to reflect the unique needs of Tennessee.

Definitions

The Tennessee Promoted Industry Credential List is used to identify various industry credentials available to secondary students which are recognized, valued, and preferred by industry in Tennessee. The Tennessee Promoted Industry Credential List is inclusive of broader industry credentials and includes industry certifications, certificates, licenses, and badges, as defined below.

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[1] From Lumina Foundation and A Stronger Nation, Connecting Credentials, http://www.strongernation.luminafoundation.org.

In Tennessee, **industry certifications** are awarded to secondary and post-secondary students based on the mastery of a specific set of industry or job-related competencies. Industry certifications are usually developed in collaboration with employers and validated through a third-party vendor which uses an assessment to determine mastery. Industry certifications are typically awarded or valid for a limited time but may be renewed.

In Tennessee, **certificates** are typically awarded to individuals based on the completion of a specific task, such as a training module, course, program (i.e. apprenticeship), etc. There is no standard for awarding certificates and not all certificates include an assessment to measure learning outcomes or reflect mastery of a set of competencies. Certificates may be associated with needs for a specific job role or very broad general skills, like employability or leadership skills.

In Tennessee, **postsecondary credentials, degrees,** or **licenses** are awarded by a postsecondary institution or governmental agency granting the individual the legal ability to be employed in a specific occupation, such as a licensed practical nurse or cosmetologist. Licenses are valid for a limited time, generally require continuing education to renew, and may be revoked by the awarding agency.

Badges or **micro-credentials** are a relatively new term as it relates to Tennessee education and workforce systems. Like certificates, the criteria to award badges vary widely and in most cases, badges are a digital representation of an award or the completion of a task.

Criteria

To be considered for the Tennessee Promoted Industry Credential List, the submission must have met the following **minimum criteria**:

- the credential is aligned to at least one TDOE approved CTE program of study
- the student-level credential attainment data is documented in the form of a certificate, certification, badge, micro-credential, etc. and an agreement is in place, or is available, for the data to be shared directly with TDOE
  *NOTE: If no data sharing agreement is available with the vendor, the data must be obtainable through district reporting and submission of qualifying documentation of student attainment.

Additional criteria were used to evaluate submissions for the Tennessee Promoted Industry Credential List, including but not limited to:

- the credential has statewide or national recognition and is based on student mastery of relevant skills, knowledge, and/or demonstration
- the credential is aligned to statewide high skill, high wage, and/or in-demand occupations and a CTE program of study that is identified as high skill, high wage, and/or in-demand in most economic regions of Tennessee

- the submission identified and included letters of support from state-wide employers who use the industry credential as a preferred requirement for entry-level employment or as part of the components of an entry-level job description
- the credential is required to enter the workforce in the relevant industry area, i.e. a license to operate, etc.
- the credential can be used to enhance an internship, WBL, or job shadowing experience and students work with an external business partner or organization to complete the credential
- a third-party or governing board administers the assessment exam or other quantifiable measure to validate student attainment and mastery
- the curriculum and standards used to prepare students for the industry credential is relevant, research-based, and high-quality and have been updated to the most current industry trends
- the credential is attainable by a secondary student and renewable after graduation
- postsecondary institutions are involved in discussions to accept or currently accept the credential for postsecondary credit

Process and Review

The 2020-21 industry credential submission window open from July 20, 2020, to August 25, 2020, and was open to the general public for electronic submissions. Once the submission window closed, a team of reviewers representing secondary and postsecondary educators, TDOE, TBR, TLWFD, THEC, Tennessee Department of Agriculture (TDOA), and Tennessee Department of Economic and Community Development (TECD) used the identified criteria and scoring rubric to review each submission.

Each submission was evaluated by multiple reviewers and the average rubric score was used to approve or deny additions for the 2020-22 Tennessee Promoted Industry Credential List. If approved, the industry credential would be categorized into one of three tiers – **Recognized**, **Valued**, or **Preferred** – based on the rubric score and promoted for use in K-12 schools and across Tennessee's broader educational and workforce systems.

Tier 1 - RECOGNIZED	Tier 2 - VALUED	Tier 3 – PREFERRED
This is the minimal level at which an industry credential can be promoted and is considered recognized statewide. To be included at this tier, credentials must receive a minimum of **40 points** on the rubric.	This is the second level at which an industry credential can be promoted and is considered valued statewide. To be included at this tier, credentials must receive a minimum of **51 points** on the rubric.	This is the third level at which an industry credential can be promoted and is considered preferred statewide. To be included at this tier, credentials must receive a minimum of **61 points** on the rubric.

Figure 1

Please note, the tiering of industry credentials is used to distinguish the perceived value of the credential by Tennessee postsecondary, employers, business, and industry. TDOE continues to evaluate the use of these

tiers in other meaningful ways, including how the tiers would impact the Ready Graduate indicator. More information will be released on this topic as available.

Findings of the 2020-21 Industry Credential Review

During the 2020-21 industry credential submission window, 133 credentials were submitted for review representing all 16 nationally CTE Career Clusters. There were also 78 un-duplicated credentials identified in the previous "2018-19 Promoted Student Industry Certification List" which were also reviewed using the new criteria and review process.

The process now allows the option to submit a credential as a Special Industry Credential which could be needed to support a specific local or regional industry. Credentials approved as a Special Industry Credential would not be promoted as a statewide industry credential but would allow flexibility for CTE programs to continue the use of Perkins funding to support these local needs. No submissions were received and/or approved as a Special Industry Credential.

After review of all submitted credentials and previously approved credentials on the 2018-19 Promoted Student Industry Certification List, a total of **157 industry credentials were approved and are included in the 2020-22 Tennessee Promoted Industry Credential List**. Of the 157 industry credentials identified on the 2020-22 Tennessee Promoted Industry Credential List, 33 were identified as Recognized, 45 were identified as Valued, and 79 were identified as Preferred.

2020-22 Tennessee Promoted Industry Credential (in alphabetical order)	Tier
Adobe Certified Associate - After Effects	Preferred
Adobe Certified Associate - Animate	Preferred
Adobe Certified Associate - Dreamweaver	Preferred
Adobe Certified Associate - Illustrator	Preferred
Adobe Certified Associate - InDesign	Preferred
Adobe Certified Associate - Photoshop	Preferred
Adobe Certified Associate - Premiere Pro	Preferred
AMSA Culinary Meat Selection & Cookery Certification	Recognized
AMSA Food Safety & Science Certification	Valued
AMSA Meat Evaluation Certification	Valued
Associate of ISC2 in Cloud Security	Preferred
Associate of ISC2 in Cybersecurity Strategy and Implementation	Preferred
Associate of ISC2 in Healthcare Security & Privacy	Preferred
Associate of ISC2 in IT/ICT Security Administration	Preferred
Associate of ISC2 in Secure Software Development	Preferred
Associate of ISC2 in Security Assessment and Authorization	Preferred

AutoCAD Certified User	Valued
Autodesk Fusion360 Certified User	Recognized
Autodesk Inventor Certified User	Valued
Automotive Service Excellence Entry-Level Certification: Maintenance and Light Repair Certification	Preferred
Automotive Service Excellence Entry-Level Certification: Nonstructural Analysis/Repair	Valued
Automotive Service Excellence Entry-Level Certification: Painting and Refinishing	Valued
AWS Certified Welder	Preferred
AWS Sense Advanced	Preferred
AWS Sense Entry-Level	Valued
BASF Plant Science Certification	Preferred
Benz School of Floral Design Principles of Floral Design Certification	Recognized
Briggs and Stratton Basic Small Engine Certification	Valued
Briggs and Stratton Master Service Technician	Preferred
CDA - Child Development Associate	Preferred
Center for Financial Responsibility Personal Financial Literacy Certification	Valued
Certified Clinical Medical Assistant	Preferred
Certified Dental Assistant	Preferred
Certified EKG Technician	Preferred
Certified Fundamentals Cook (CFC)	Preferred
Certified Hospitality & Tourism Professional	Preferred
Certified Logistics Technician	Valued
Certified Nursing Assistant	Preferred
Certified Patient Care Technician	Preferred
Certified Personal Trainer	Preferred
Certified Pharmacy Technician	Preferred
Certified Production Technician 4.0 (CPT 4.0)	Preferred
Certified Solidworks Associate (CSWA) Academic	Preferred
Cisco Certified Network Associate (CCNA)	Preferred
CIW Advanced HTML5/CSS3	Preferred
CIW JavaScript Specialist	Valued
CIW Network Technology Associate	Recognized
CIW Site Development Associate	Recognized
CIW Web Design Specialist	Preferred
CIW Web Foundation	Preferred

CIW Web Security Associate	Recognized
Commercial Applicators Certification – C03 Ornamental and Turf	Preferred
CompTIA A+	Preferred
CompTIA IT Fundamentals	Preferred
CompTIA Network +	Preferred
CompTIA Security +	Preferred
C-Tech Network Cabling Fiber Based Systems	Preferred
C-Tech Network Cabling Cooper Based Systems	Preferred
C-Tech Telecommunication Technologies	Preferred
Dremel - Idea Builder 3D Printing	Recognized
Dremel - LC40 Laser Cutter	Recognized
Ducks Unlimited Ecology Conservation & Management Certification	Valued
EETC Principles of Small Engine Technology Certification	Valued
Elanco Fundamentals of Animal Science Certification	Preferred
Elanco Veterinary Medical Applications Certification	Preferred
Emergency Medical Responder (First Responder)	Preferred
EPA Section 608	Recognized
ETA Customer Service Specialist	Valued
ETA Electronics Module 1 DC (EM1)	Valued
Express Employment Professionals Business Office Technology Certification	Valued
FAA Part 107	Preferred
FANUC Robotics	Preferred
Google Suite (G-Suite)*** (will no longer be offered after Dec. 31, 2020)**	Valued
Hair Braider Registration	Preferred
Home Builders Institute Pre Apprentice Certificate Training (HBI-PACT)	Preferred
Hootsuite Platform Certification	Valued
Hootsuite Social Marketing Certification	Valued
HVAC Excellence Employment Ready Certifications	Valued
HVAC Excellence, Heating, Electrical, Air Conditioning Technology (HEAT)	Preferred
ICAR Non-Structural Technician ProLevel 1	Valued
ICAR Refinish Technician ProLevel 1	Valued
Intuit QuickBooks Certified User	Preferred
IS-0703.B: NIMS Resource Management	Recognized

IS-100.C: Introduction to the Incident Command System	Recognized
IS-200.C: Basic Incident Command System for Initial Response	Recognized
IS-5.A: An Introduction to Hazardous Materials	Recognized
Microsoft Office Specialist Certification	Preferred
Microsoft Technology Associate 98-381: Introduction to Programming	Recognized
Microsoft Technology Associate Infrastructure	Preferred
MOS Access Expert Certification	Preferred
MOS Excel Associate Certification	Valued
MOS Excel Expert Certification	Preferred
MOS OneNote Certification	Valued
MOS Outlook Associate Certification	Valued
MOS PowerPoint Associate Certification	Valued
MOS Word Associate Certification	Valued
MOS Word Expert Certification	Preferred
Natural Hair Stylist License	Preferred
NC3 Festo Certified Industry 4.0 Associate - Fundamentals	Preferred
NC3 Festo Fundamentals of Electricity - AC/DC	Valued
NC3 Festo Fundamentals of Fluid Power - Hydraulics	Valued
NC3 Festo Fundamentals of Fluid Power - Pneumatics	Valued
NC3 Festo Fundamentals of Industry 4.0	Valued
NC3 Festo Fundamentals of Mechanical Systems	Valued
NC3 Festo Fundamentals of PLC / Allen Bradley and Siemens	Valued
NC3 Festo Fundamentals of Robotics	Valued
NC3 Festo Introduction to Mechatronics	Valued
NC3 Greenlee 3-Phase Sequencing and Motor Rotation	Recognized
NC3 Greenlee Advanced Conduit Bending	Recognized
NC3 Greenlee Basic Conduit Bending	Recognized
NC3 Greenlee Electrical Branch/Series & Service Level Wire Termination	Recognized
NC3 Greenlee Fishing Conduits/ Raceways and Cable Pulling	Recognized
NC3 Greenlee Hand Bending	Recognized
NC3 Greenlee Insulation and Ground Rod Resistance Testing	Recognized
NC3 Greenlee Wire Pathways	Recognized
NC3 Lincoln Electric - Flux Cored Arc Welding (FCAW) Level I	Valued
NC3 Lincoln Electric - Gas Metal Arc Welding (GMAW) Level I	Valued
NC3 Lincoln Electric - Gas Tungsten Arc Welding (GTAW) Level I	Valued

NC3 Lincoln Electric - Shielded Metal Arc Welding (SMAW) Level I	Valued
NC3 Lincoln Electric - Welding Safety	Recognized
NC3 Snap-On Battery Starting and Charging	Recognized
NC3 Snap-On Electronic and Mechanical Torque	Recognized
NC3 Snap-On Multimeter Certification	Recognized
NC3 Snap-On Precision Measurements Instruments Certification	Preferred
NC3 Snap-On TPMS Certification	Recognized
NC3 Trane Building Automation Systems	Preferred
NC3 Trane Residential HVAC - Airflow	Preferred
NC3 Trane Residential HVAC - Air-to-Air Heat Pumps	Preferred
NC3 Trane Residential HVAC - Refrigeration Diagnostics	Preferred
NC3 Trane Residential HVAC - Variable Speed Motors	Preferred
NCCER Carpentry Level One	Preferred
NCCER Carpentry Level Two	Preferred
NCCER Construction Technology	Valued
NCCER Core Curriculum	Valued
NCCER Electrical Level One	Preferred
NCCER Plumbing Level One	Preferred
NCLCA Principles of Livestock Selection & Evaluation Certification	Valued
NHJTCA Equine Management & Evaluation Certification	Valued
NIMS Machining Level I - Measurement, Materials, and Safety Certifications	Valued
OSHA 10 Construction	Recognized
OSHA 10 General Industry	Recognized
OSHA 30 Construction	Recognized
OSHA 30 General Industry	Recognized
Physical Therapist Aide	Preferred
Registered Behavior Technician	Preferred
ServSafe Manager Certification	Preferred
Siemens Level 1 Certified Mechatronic System Assistant	Preferred
Smart Automation Certification Alliance (SACA) Certified Industry 4.0 Associate	Recognized
Southwest Airlines Professional Communications Certification	Valued
Tennessee Specific Industry Certification - Animal Science	Preferred
Tennessee Specific Industry Certification - Horticulture	Preferred
Tennessee Specific Industry Certification - Human and Social Science	Preferred
Tennessee Specific Industry Certification - Dietetics and Nutrition	Preferred

TN Board of Cosmetology & Barbering - TN Cosmetology 1010	Preferred
TN Board of Cosmetology & Barbering - TN Master Barber 1010	Preferred
Unarmed Security Guard	Preferred
Universal R - 410A	Recognized

Figure 2

Please note, local Perkins V funding may be used to support student attainment of the Tennessee Promoted Industry Credentials. For more information, K-12 districts should reach out to the regional CTE CORE Consultant.

Conclusion

As we work across the state to support workforce development, the implementation of student industry credentials through high-quality CTE programs must remain a statewide strategy. Tennessee's K-12 districts are strongly encouraged to include student industry credentials as part of the district's larger strategic approach and priorities.

Moving forward, the industry credential submission window will be released annually each spring. This report and the Tennessee Promoted Industry Credential List will be updated annually and released with the approved CTE program of study, course, and standards revisions each fall. The annual Tennessee Promoted Industry Credential List review will include currently approved and submitted industry credentials aligned to the CTE Career Clusters review cycle. The Tennessee CTE Career Cluster review cycle may be found, here.

For more information on Tennessee Promoted Industry Credentials, please visit our website, here. The searchable and filterable version of the 2020-21 Tennessee Promoted Industry Credential List may be found, here. Additional resources on each industry credential may be found, here.