



TN

Department of
Education

Student Industry Certifications

Tennessee Department of Education | Division of College, Career and Technical Education
Office of Career and Technical Education

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Executive Summary

It is the goal of the department that every student in Tennessee graduates high school prepared for postsecondary coursework and qualified for quality employment. To achieve this, high school students are encouraged to focus their elective credits on robust, career-aligned learning pathways.

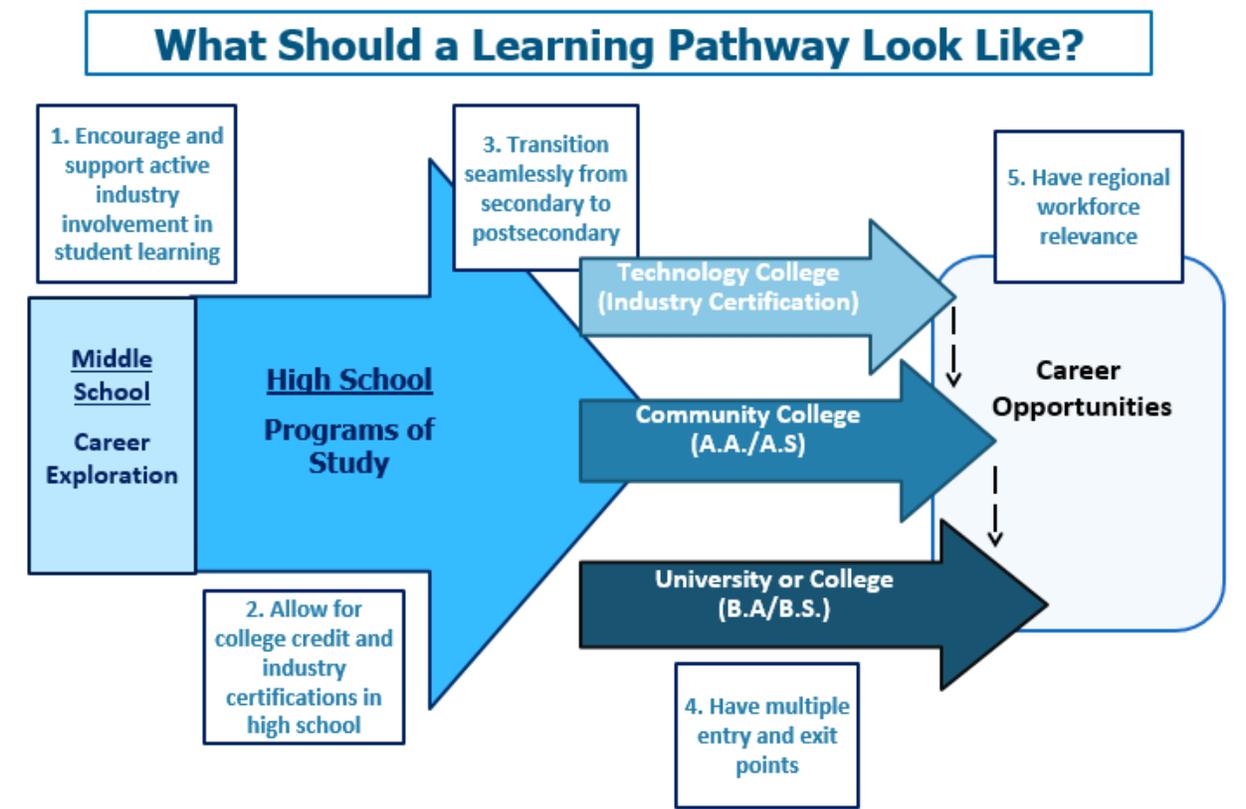
For students focusing in career and technical education (“CTE”) through one of the programs of study in the 16 nationally recognized career clusters that the department promotes, robust learning pathways should culminate with the achievement of nationally recognized industry certifications, meaningful work-based learning experiences, and/or attainment of postsecondary credit hours through early postsecondary opportunities. As it pertains to industry certifications, all department-promoted certifications are aligned with postsecondary and employment opportunities and with the competencies and skills that students should have acquired through their chosen programs of study.

This guidance document outlines the criteria used by the department to identify aligned industry certifications and the role these certifications should play when a robust, aligned student learning pathway is implemented successfully. It is important to note that this is not an exhaustive list of every industry certification available to students but rather a list of stackable credentials and capstone certifications specifically tied to CTE courses and programs of study which can serve as capstone experiences.

Elements of a Robust, Aligned Learning Pathway

A robust, aligned learning pathway is a grade 7–14/16 pathway embedded with solid partnerships and clear expectations. Courses are not repetitive at each education level but rather build upon each other to produce a professional continuum in which students receive stackable credentials enabling them to succeed at multiple entry and exit points within their academic/career path. Figure 1 outlines the components of a robust, aligned learning pathway.

Figure 1



1) Encourage and support active Industry involvement in student learning

Active industry involvement begins early on in a student's learning pathway. This involvement can and should take on many different forms and should progress in involvement as the student progresses through his/her learning pathway. This type of involvement can represent (1) curricular alignment with labor market needs, (2) student career site visits/employer visits to schools, (3) industry advisory councils, (4) teacher

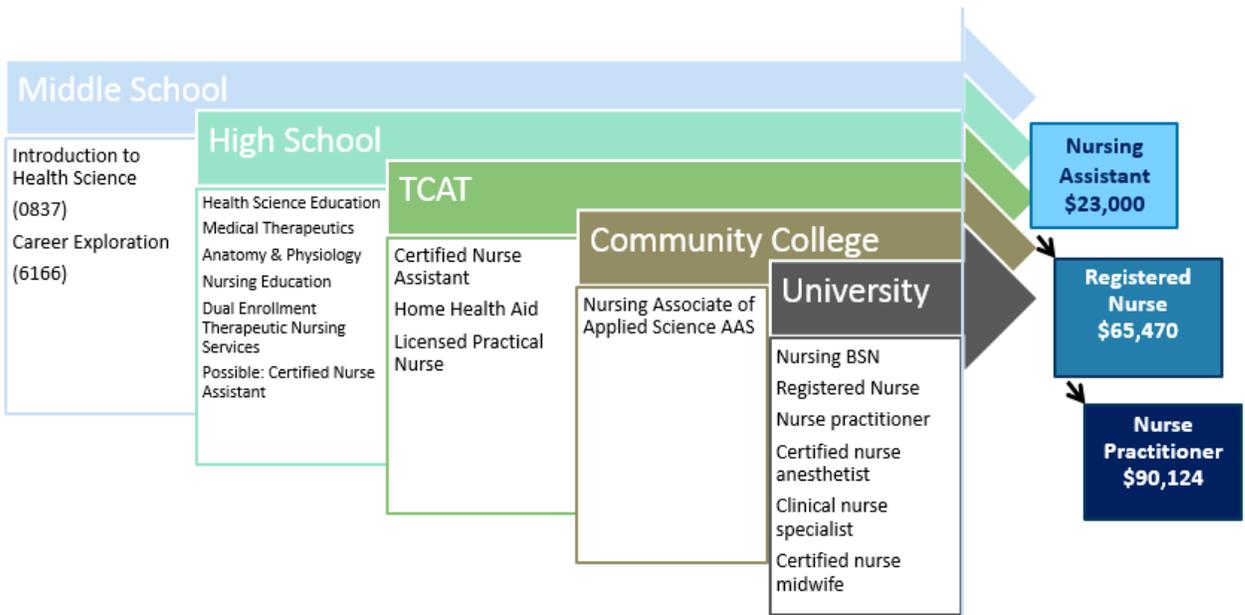
externships and student internships, and/or (5) active work-based learning experiences and internships.

2) Allow for college credit and industry certifications in high school

Students should be demonstrating proficiency as they progress through their learning pathway. To ensure students are developing college and career ready skill sets, robust learning pathways should embed opportunities for students to demonstrate these skills through early postsecondary and industry credentials. A learning pathway and program of study should be seamless from high school through postsecondary as students build upon prior learning with stackable credentials at various levels of education. Each credential or degree a student receives will, ideally, translate to the professional continuum in his/her selected career (i.e., promotions, qualifications for higher paying positions, leadership roles, postsecondary credit, etc.).

Figure 2 demonstrates this concept. This is an example from the Therapeutic Nursing Services program of study in the Health Science career cluster. The Certified Nursing Assistant certification serves as a capstone industry certification for this particular program of study. Achievement of this certification reflects attainment of required industry skills in order to be gainfully employed and/or to continue matriculation to a postsecondary degree or credential.

Figure 2



It is important to note that several stackable credentials can and should be included in a student's pathway. Stackable credentials, such as the Microsoft Office Suite certifications, allow a student to demonstrate proficiency along his/her learning pathway. These stackable credentials are just as important as capstone certifications since they build a student's confidence and demonstrate a valuable portfolio of skills.

3) Transition seamlessly from secondary to postsecondary

Robust, aligned learning pathways have clear goals for student entry into postsecondary. They detail the credential and/or degree a student needs to continue along a desired career path. As Figures 1 and 2 demonstrate, there must be clear, aligned pathways for students to advance from secondary to postsecondary. Middle school courses should lay the foundation for a student's chosen program of study in high school, which should in turn prepare that student for the next level of postsecondary coursework—whether this is at a TN College of Applied Technology, a two-year community college, or a four-year university. At each stage of the pathway, the student should be building upon the knowledge and skills learned in previous coursework and demonstrating ongoing academic, technical, and soft-skill mastery.

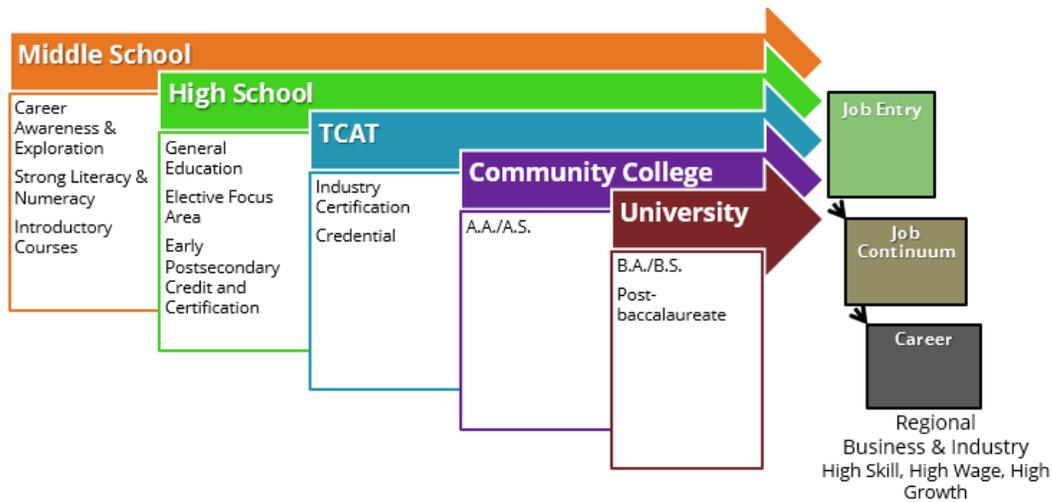
4) Have multiple entry and exit points

Robust, aligned pathways with multiple entry and exit points prepare students for life-long growth in their chosen careers. Consider the example of the Therapeutic Nursing Services program of study in the Health Science career cluster. The student is prepared to exit the learning pathway upon high school graduation with a Certified Nursing Assistant certification and go directly into the workforce. However, the student will be equally prepared to take that achieved certification and apply it towards entrance into a Nursing Associate of Applied Science program at a community college and/or move into a nursing program at a four-year university.

5) Have regional workforce relevance

Robust, aligned pathways must connect to legitimate opportunities for students in and around their communities. Department promoted programs of study, if implemented with fidelity, should feed directly into related postsecondary programs that are aligned to the needs of regional labor and economic and community development data (see Figure 3). These data should reflect high skill, high wage, and high growth opportunities so that students and parents see and understand the viable opportunities for employment upon graduation from secondary and postsecondary.

Figure 3



Goals for Alignment of Industry Certifications

The approach taken to align industry certification is designed to ensure students are presented with viable seamless learning pathways. This designed approach contains three main goals: 1) increase student attainment of department-promoted industry certifications, 2) increase student transference of department-promoted industry certifications to meaningful postsecondary and workforce opportunities following high school graduation, and 3) provide and ensure consistency in the promotion of all department-promoted industry certifications with various stakeholders.

- 1) **Increase student attainment** of department-promoted industry certifications
 - a. Increase number of students sitting for promoted certification exams
 - b. Increase pass-rates for said exams

- 2) **Increase transference** of department-promoted industry certifications to meaningful opportunities for students following high school graduation
 - a. Increase number of credit and/or hours awarded upon entering a postsecondary program
 - b. Increase employment rates and workforce matriculation

- 3) **Ensure consistency** in the promotion of department-promoted industry certifications with various stakeholders, including students, caregivers, school personnel, and postsecondary and industry partners. Promotion may include:
 - a. Capstone experiences in CTE programs of study
 - b. Recognition for “state distinction” upon graduation
 - c. Opportunities available through the attainment of a certification

Alignment Criteria for Promotion of Certifications

It is important that department-promoted certifications meet a set of criteria designed to ensure students can transfer attained certifications to postsecondary matriculation and workforce employment. Certifications should further a student's pathway not hinder it. In so keeping, the department used the following criteria to determine which industry certifications to promote:

- 1) Industry recognized and valued
- 2) Aligned to CTE course and/or program of study
- 3) Transference to postsecondary
- 4) Transference to high quality employment

Industry Recognized and Valued

For any certification to be promoted, it is essential that the certification is recognized and valued by the targeted industry. The industry certifications promoted by the department have been vetted by respective career cluster advisory councils (composed of Tennessee industry representatives). If an identified certification was recognized but not valued, it was not included in the final department-promoted list. All promoted certifications must show both.

Aligned to CTE Course and/or Program of Study

Department-promoted industry certifications should be representative of the learning a student has mastered through the successful completion of an aligned CTE course and/or program of study. It is important that this alignment exists and that the content in the certification is not simply representative of a few standards within a course.

Industry certifications can be stackable credentials such as Microsoft Office Suite certifications (as identified with the Office Management program of study), or they can be capstone, meaning they represent the culmination of acquired skills through the completion of a particular program of study, such as Certified Nursing Assistant certification as shown by Figure 4.

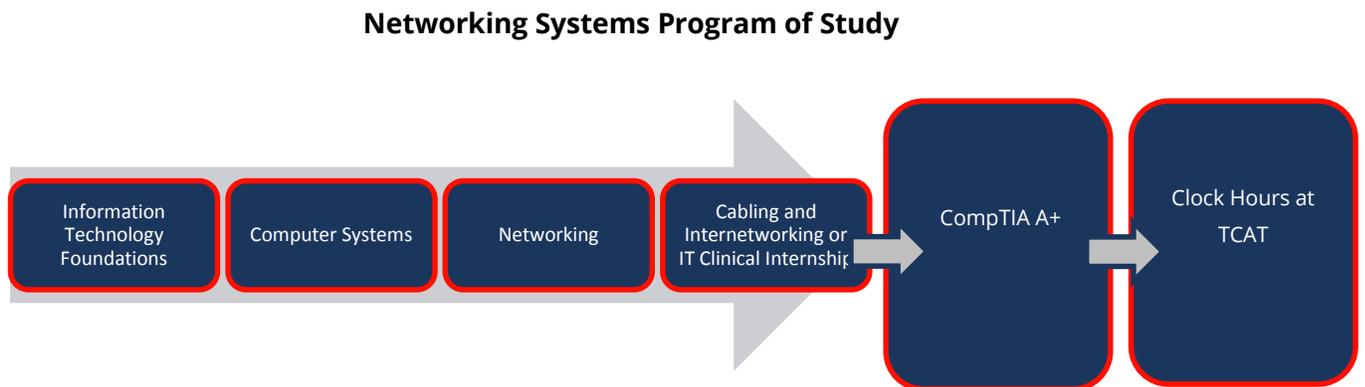
Figure 4



Transference to Postsecondary

Transferability to postsecondary refers to industry certifications that are accepted for credit or hours by postsecondary institutions. For example, all of the department-promoted capstone industry certifications count for postsecondary credit at Tennessee Colleges of Applied Technology (Figure 5). Students who obtain these certifications can transfer clock hours toward the aligned program offered by Tennessee Colleges of Applied Technology.

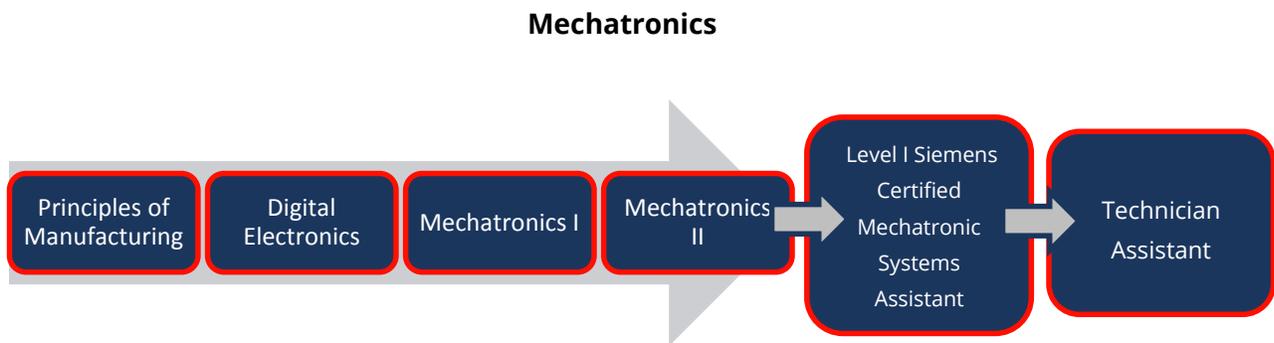
Figure 5



Transference to High Quality Employment

In addition to being industry valued and recognized, department-promoted industry certifications must lead to high quality employability. Therefore all promoted certifications should translate into job opportunities above entry level positions. For example, the attainment of a Level I Siemens Certified Mechatronic Systems Assistant certification through the Mechatronics program of study (Figure 6) allows a student to qualify for a position as a Technician Assistant in the advanced manufacturing industry sector.

Figure 6



Conclusion

As districts across the state seek to prepare more students for success after high school in postsecondary and the workforce, department-promoted industry certifications should be part of any district's larger strategic approach and priorities. As stated earlier, it is the goal of the department that every student in Tennessee graduates high school prepared for postsecondary coursework and qualified for quality employment.

For more details about department-promoted industry certifications, please contact the office of career and technical education and/or refer to the department's promoted programs of study and courses found on the [department's website](#).