Industry Certifications & Assessments

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Heather Justice, executive director, office of career and technical education
It's our responsibility to set students up for success.

Given our progress, the changing world, and the opportunity of Tennessee Promise, we must reorganize around a new vision:

SUCCESS AFTER GRADUATION
Elements of a Robust, Aligned Learning Pathway

1. Encourage and support active industry involvement in student learning

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

3. Transition seamlessly from secondary to postsecondary

4. Have multiple entry and exit points

5. Have regional workforce relevance

Middle School
Career Exploration

High School
Programs of Study

Technology College (Industry Certification)

Community College (A.A./A.S)

University or College (B.A./B.S.)

Career Opportunities
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.
• It should also progress in involvement as the student progresses through his/her learning pathway.
• This type of involvement can represent
  – curricular alignment with labor market needs,
  – student career site visits/employer visits to schools,
  – industry advisory councils,
  – teacher externships and student internships, and/or
  – active work-based learning experiences and internships.
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.
- Each credential or degree a student receives will, ideally, translate to the professional continuum in his/her selected career (promotions, qualifications for higher paying positions, leadership roles, postsecondary credit, etc.).
Transition Seamlessly from Secondary to Postsecondary

Middle School
- Introduction to Health Science (0837)
- Career Exploration (6166)

High School
- Health Science Education
- Medical Therapeutics
- Anatomy & Physiology
- Nursing Education
- Dual Enrollment
- Therapeutic Nursing Services
- Possible: Certified Nurse Assistant

TCAT
- Certified Nurse Assistant
- Home Health Aid
- Licensed Practical Nurse

Community College
- Nursing Associate of Applied Science AAS

University
- Nursing BSN
- Registered Nurse
- Nurse practitioner
- Certified nurse anesthetist
- Clinical nurse specialist
- Certified nurse midwife

Nursing Assistant $23,000
Registered Nurse $65,470
Nurse Practitioner $90,124
Have Regional Workforce Relevance
Goals for Alignment of Industry Certifications

• **Increase student attainment** of department-promoted industry certifications
  – Increase number of students sitting for promoted certification exams
  – Increase pass-rates for said exams

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

• **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:
  – Capstone experiences in CTE programs of study
  – Recognition for “state distinction” upon graduation
  – 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:
  - Industry recognized and valued
  - Aligned to CTE course and/or program of study
  - Transference to postsecondary institution
  - Transference to high quality employment
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 department promoted certifications must show both.
Transference to Postsecondary

Architectural & Engineering Design Program of Study

- Architectural & Engineering Design I
- Architectural & Engineering Design II
- Architectural & Engineering Design III
- Engineering Practicum
- ADDA Apprentice Drafter-Architectural or Apprentice Drafter-Mechanical
- 300-600 hours TCAT CAD Technician Program
Transference to High Quality Employment

Mechatronics

- Principles of Manufacturing
- Digital Electronics
- Mechatronics I
- Mechatronics II
- Level I Siemens Certified Mechatronic Systems Assistant
- Technician Assistant
Phase III
### Current CTE Strategic Plan: Multi-Phased, Multi-Year Approach

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<th>Phase</th>
<th>Goal</th>
<th>Implementation</th>
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<td>Phase I</td>
<td>Streamline our existing courses and programs of study</td>
<td>2013-2014 SY</td>
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<tr>
<td>Phase II</td>
<td>Add relevant new courses and new programs of study, revise courses to align to higher student expectations</td>
<td>2014-2015 SY</td>
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<td>Phase III</td>
<td>Measure success of students with rigorous assessment options for all courses</td>
<td>2015-2017 SY</td>
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#### Immediate Wins:
- Eliminate redundancies
- Streamline for greater flexibility
- Organize curriculum in POS using existing courses

#### Deeper Dive:
- Revise existing courses
- Develop new courses
- Increase relevance of POS to reflect stronger alignment

#### Measuring Success:
- Provide opportunities to evaluate student achievement using assessment options

**2013-14**

**2014-15**

**2015-17**
Identifying **authentic assessment options for CTE courses**

- Assessment options will present opportunities for LEAs to:
  - Effectively measure and reward student learning
  - Effectively measure and give productive feedback to improve teaching
  - Identify and share best practices and lessons learned across the state
Progression of Assessments

Level One Course → Level Two Course → Level Three Course → Level Four Course

EOC → Interim Assessment → Interim Assessment → Capstone Assessment
Progression of Assessments

Health Science Education → Medical Therapeutics → Anatomy & Physiology → Nursing Education

- Level One EOC
- Teacher Created Interim Assessment
- Teacher Created Interim Assessment
- CNA Certification
Progression of Assessments

Health Science Education

Diagnostic Medicine

Medical Terminology Dual Enrollment

Clinical Internship

Level One EOC

Teacher Created Interim Assessment

Capstone Assessment through Dual Enrollment

Capstone WBL Experience
Progression of Assessments

Agriscience → Small Animal Science → Large Animal Science → Veterinary Science

- Level One EOC
- Teacher Created Interim Assessment
- Teacher Created Interim Assessment
- Tennessee Specific Industry Certification
Progression of Assessments

Principles of Manufacturing → Welding I → Welding II → Manufacturing Practicum

- Level One EOC
- Teacher Created Interim Assessment
- Capstone Portfolio OR AWS Certification
- Capstone WBL Experience