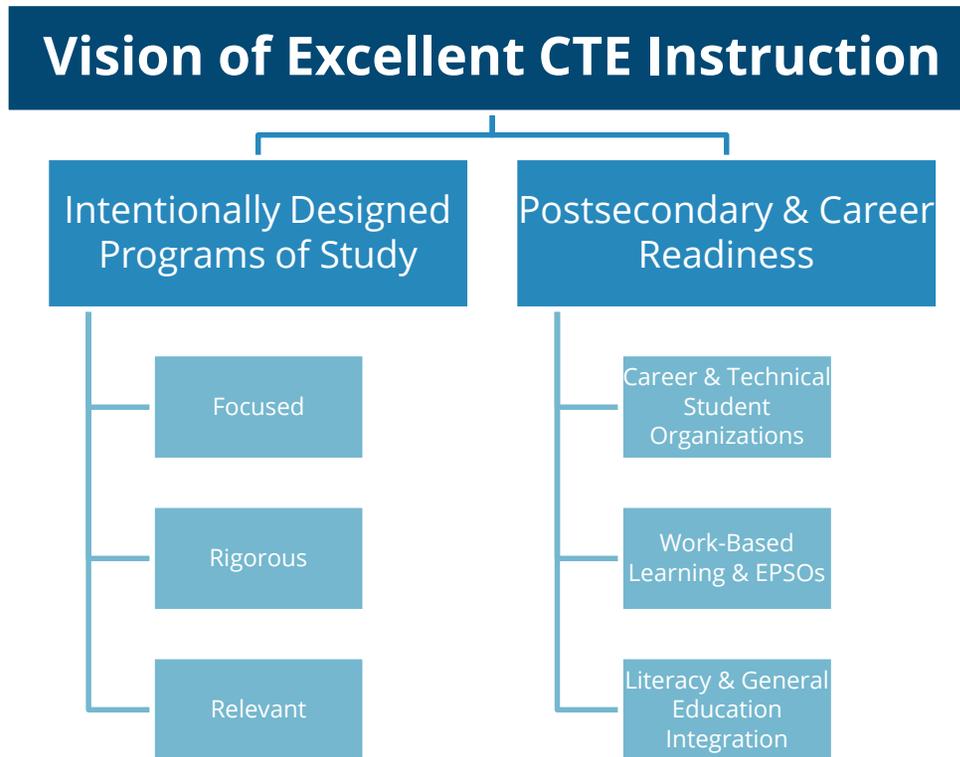# Vision of Excellent Career and Technical Education (CTE) Instruction

Educators strive to prepare students to meet the demands of the postsecondary pathway of their choosing. This means -

CTE does more than simply prepare students for careers, it provides students with an opportunity to develop specific academic, intellectual, technical, and 21st century skills necessary to be successful in career and in life. In pursuit of ensuring every student in Tennessee achieves this level of success, we begin with rigorous course standards which feed into intentionally designed programs of study. Students engage in industry relevant content through general education integration and experiences such as career & technical student organizations (CTSO), early postsecondary opportunities (EPSO), work-based learning (WBL), and industry certification. Through these experiences, students are immersed with industry standard content and technology, solve industry-based problems, meaningfully interact with industry professionals and use/produce industry specific, informational texts. CTE gives students the necessary tools to be successful on the path to postsecondary success.

Vision of Excellent CTE Instruction

Intentionally Designed Programs of Study

- Focused
- Rigorous
- Relevant

Postsecondary & Career Readiness

- Career & Technical Student Organizations
- Work-Based Learning & EPSOs
- Literacy & General Education Integration

CTE programs of study are intentional.

- **CTE courses are focused.** CTE environments are focused on the most important content, which is gradually deepened from course to course. Educators create opportunities for students to engage with industry standard technology, processes, and ways of approaching real world problems relevant to a program of study.
- **CTE courses are rigorous.** Students use critical thinking and problem solving skills daily. Educators use their own deep content knowledge, industry experience and student data to gauge the level of student proficiency and lead students to a deep understanding of industry specific vocabulary, content, and relevant skills.
- **CTE courses are relevant.** The content and related 21st century skills of a chosen program of study are aligned to current industry standards and prepare students for meaningful postsecondary opportunities. The programs of study students are enrolled in support the workforce demands of regional and state economic and labor market needs and trends.

Postsecondary and Career Readiness

- **Career and Technical Student Organizations:** CTSOs engage students through a focus on CTE application such as opportunities for 21st century skills and leadership development and academic integration through application of specific general education and occupational content. Involvement in these organizations include student experiences at the local, state and national level, thereby preparing students for success in their desired program of study.
- **Work-Based Learning & Industry Certification:** With access to work-based learning opportunities, students demonstrate active involvement in industry with direct guidance and support from industry professionals allowing them to learn key employability skills and contribute meaningfully to their communities. Additionally, opportunities to earn industry certifications through capstone courses allows students to enter industry possessing key knowledge and skills necessary for success in a particular field. Both of these options ensure that students will be able to effectively navigate the transition from high school to postsecondary and working life.
- **EPSOs:** While in high school, students should have multiple opportunities to earn postsecondary credits. Increasing access to postsecondary course offerings and creating awareness of new and existing opportunities, which allow students to earn postsecondary credit, are fundamental to providing high school students with multiple avenues to begin coursework that leads to postsecondary pathways, certificate/credentials and degrees.
- **Literacy and General Education Integration:** For students to be truly college and career ready on the path to postsecondary success, they must be well-versed using industry specific vocabulary, reading and comprehending industry specific informational/technical text(s), and be able to speak and write clearly. Therefore, CTE programs ensure that students have multiple opportunities to engage in program specific reading, writing, speaking and listening, and provide multiple supports for doing so. Students must also see the connection between other general education courses and their programs of study- making cross-curricular connections often.

Context for Using This Vision

- The table of *Ready Student Actions* and *Ready Teacher Actions* on pp.3-4 was developed as a <u>sample list</u> of concrete behaviors that take place in a classroom demonstrating excellent CTE Instruction. It is not an all-inclusive list, nor is it in any particular order of importance.
- Teacher actions were developed with this vision of excellent CTE instruction and the TN TEAM general educator rubric in mind with "*Significantly Above Expectations*" teacher actions as the benchmark.

Ready Student Actions	Ready Teacher Actions (TEAM/VoEI Alignment)
- Participate in CTSOs for their respective cluster. - Take advantage of EPSO opportunities available to them and earn postsecondary credit. - Take advantage of the WBL opportunities available to them. - Take advantage of and earn the industry credentials/certification opportunities available to them. - Take time to reflect and respond to/implement feedback. - Complete complex based projects using skills specific to the industry in a lab or classroom setting. - View themselves as professionals, preparing themselves for their chosen postsecondary pathway. - Develop a conceptual understanding of their CTE content by articulating cross-content connections. - Read increasingly complex, industry specific texts over time to build their understanding and knowledge of their CTE program of study. - Incorporate gathered evidence and data from a variety of sources into their own findings to help support their conclusions. - Build models to represent their thinking, help them collect evidence, or make predictions.	- Integrate CTSOs into their classroom instruction and daily practice. - Enhance rigor and relevance of early postsecondary courses. - Integrate literacy and numeracy into daily lesson planning. - Make students & parents aware of EPSO opportunities available to students in their respective region. - Make students & parents aware of WBL and industry certification opportunities available to students in their respective region. - Make students and parents aware of CTSO opportunities available to students at the local, regional, state, and national levels. - Design and plan complex based projects using skills specific to the industry in a lab or classroom setting. - Design learning objectives and lessons that meet or exceed state standards that have high expectations of student performance. *(Standards and Objectives)* - Break down content into a progression of daily objectives or discovery questions to build up to a comprehensive understanding of complex design. *(Standards and Objectives)* - Develop learning experiences that allow for inquiry and exploration of content. *(Motivating Students)* - Use multiple methods to present material and model thinking process to guide students to demonstrate expectations. *(Presenting Instructional Content)* - Keep the pace of the lesson brisk while allowing time for student reflection. *(Lesson Structure and Pacing)*

- Demonstrate "soft skills" appropriate to the professional environment of their CTE program of study.
- Complete complex projects that require multiple steps and complications in a setting that models real world application.
- Correctly use the mathematical concepts and computations required by their CTE course or program of study.
- Demonstrate safety and understand the reasoning and rationale behind safety practices related to their CTE program of study.
- Use industry appropriate technology to demonstrate their knowledge of content and its practical uses in a professional setting.
- Participate on a team that models what professional teams look like and how they operate.
- Communicate clearly and precisely on content through oral presentations and through written work, including project write ups, research papers, and presentations.
- Use a problem-solving mindset to persevere in the face of challenging work.

- Design relevant activities and materials for students that require complex thinking and analysis, provide choice in how they will demonstrate knowledge, and are differentiated based on student need. *(Activities and Materials)*
- Ask focused, pre-planned questions to facilitate learning during inquiry based lessons that make students use evidence in their answers. *(Questioning)*
- Give specific feedback rooted in content knowledge that allows students to adjust their work, but pushes their thinking and deepens their understanding. *(Feedback)*
- Strategically group students, based on student needs or professional setting, where students know their roles and expectations. *(Grouping Students)*
- Use extensive content knowledge to guide students, give feedback, and consistently deepen student understanding. *(Teacher Content Knowledge)*
- Differentiate instruction, projects, and feedback based on individual student needs. *(Teacher Knowledge of Students)*
- Provide students with a variety of tools, approaches, models of thought, and mindsets to tackle challenging problems they may face in professional settings. *(Thinking)*
- Provide multiple opportunities to model and have students practice multiple problem solving skills in a variety of contexts. *(Problem-Solving)*
- Create a safe, orderly environment that meets industry safety standards for the CTE program of study. *(Environment)*
- Make explicit cross-curricular connections between CTE content and other subject areas. *(Instructional Plans)*
- Build CTE and industry vocabulary by teaching and using technical language/texts related to the content.
- Reinforce key content using industry professionals in the classroom.