

Pennsylvania Technical Assistance Program



Improving Academic and Occupational Achievement in Career and Technical Education

The Pennsylvania Department of Education, Bureau of Career and Technical Education (BCTE) has launched a statewide initiative to increase the quality and impact of Career and Technical Education (CTE) programs, while ensuring that these programs are aligned with the Commonwealth's economic and workforce development priorities. Two major goals set by BCTE, outlined in the current Strategic Plan, are to increase academic and occupational achievement and success for all CTE students.

To support progress toward these goals, PDE is providing assistance to selected career and technical centers (CTCs) and high schools with CTE programs through the Technical Assistance Program (TAP). Through TAP, participating CTCs are working to raise student performance on the PSSA (Pennsylvania System of School Assessment) and occupational end-of-program assessments. Each participating CTC agrees to develop an improvement plan for increasing student achievement, work closely with a designated improvement coach (Career and Technical Distinguished School Leader) and participate in all professional development activities provided by the BCTE.

Although some CTCs already have an established track record of solid performance in raising student achievement and others are accelerating their efforts at improvement through participation in the TAP, the activities of this program are not enough to influence student achievement alone. Each CTC and their participating school districts must take ownership of the actions necessary to achieve the desired student improvement on occupational end-of-program assessments and proficiency on the PSSA. This is critical to achieving future performance standards and to institutionalize the continuous improvement process.

Technical assistance and professional development activities are being delivered by providers to achieve the goals of this Technical Assistance Program:

DISTINGUISHED SCHOOL LEADERS

Career and Technical Distinguished School Leaders (CTDSL) provide expertise and leadership to assist CTCs in identifying instructional or systemic barriers and critical gaps in improving student achievement and then working with school district staff to overcome those barriers and fill those gaps. The CTDSL's role is flexible in order to meet the unique needs of each CTC.

SOUTHERN REGIONAL EDUCATION BOARD (SREB)

Site Development Training provides CTC teams with an understanding of the Key Practices, Key Conditions and strategies expected of them in implementing the concepts of the Technology Centers That Work (TCTW) model. CTCs develop a three-to five-year plan for implementing the goals and key practices of TCTW at their school. Focus teams are identified in each CTC with strategies for determining how each team will lead the school's faculty members in implementing the TCTW model.

Changing the Culture of Teaching, Learning and Expectations of CTCs: Using Data for Continuous Improvement utilizes data to lead change by creating high expectations for teaching and learning cultures. Participants examine the need for change and examine the current culture of expectations for teaching and student learning.

Literacy Training to Support the Common Core State Standards uses the Literacy Design Collaborative (LDC) framework to connect the Common Core State Standards (CCSS) with secondary English/Language Arts (ELA), career-technical, social studies, science, and electives classes. The LDC approach is student-centered and includes research-based tools designed to help teachers get students to meet the CCSS at proficient levels.

Seven Essential Teaching Skills for the 21st Century will target the unique challenge facing CTE instructors in the 21st century — to engage increasingly diverse student populations in learning the technical, academic and 21st Century knowledge and skills necessary for success in further learning in the workplace and assists administrators in the challenge of increasing the quality of instruction in CT programs.

Enhancing Mathematics Through Project-Based Learning involves mapping the curriculum to identify the activities, problems, projects and assessment items that relate to embedded mathematics in their instructional areas.

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Building Academic Skills in Context: Enhancing Numeracy Achievement and the Common Core State Standards through CTE Curriculum and Instruction involves CTC teams who will participate in activities that assist them in understanding and identifying the Common Core State Standards (CCSS) for Mathematics germane to the activities, problems, projects and assessments of their CTE curriculum/goals and develop use of tools to address mathematics misconceptions to deepen students' conceptual understanding.

TCTW Student Assessment is an excellent tool for establishing baseline data. The assessment, which is based on the National Assessment of Educational Progress (NAEP), will be administered to a random sample of 60 seniors. The **Instructor/Student Survey** provides an extensive survey of experiences at the school. Schools will receive a composite site report that includes data results for the individual school, the overall network and high achieving schools with similar student populations.

NATIONAL OCCUPATIONAL COMPETENCY TESTING INSTITUTE (NOCTI)

NOCTI Pre-Assessments provide CTE programs with information and data to assist instructors and students in identifying skill strengths, as well as gap areas that need further remediation. These reports are excellent diagnostic tools to help instructors adjust curriculum to meet the specific needs of the students. Using **Study Guides** to target the identified curriculum areas for remediation throughout the school year will ultimately improve student performance on the end-of-program assessment. Study Guides contain information on both the written and performance portions of the end-of-program assessment including an overview of the assessment which shows percentages of each duty covered and study checklists for each duty in the written and performance portions of the assessment.

MAX TEACHING, INC.

MAX Teaching with Reading and Writing illustrates teaching strategies related to literacy for implementation into all instructional environments and in particular, the CTC classroom. These strategies address current literacy deficiencies of the student population. Through a collaborative effort between the CTC and their sending districts, overall student academic achievement, as well as technical skill attainment, is improved. Professional development activities at each TAP school allows instructors to learn research-based teaching strategies related to literacy which can be implemented into all instructional environments and in particular the CTE classroom. In addition, instructors will observe the consultant modeling the teaching strategies using the school's own reading materials and lesson plans.

PENNSYLVANIA INSPIRED LEADERSHIP PROGRAM (PIL)

Pennsylvania Inspired Leadership Programs are statewide, standards-based continuing professional education programs for school leaders. The comprehensive program is focused on developing the capacity of leaders to improve student achievement. Several PIL Programs have been specifically developed by the Pennsylvania Association of Career and Technical Administrators (PACTA) for this Technical Assistance Program.

- Utilizing Data Driven Decision-Making to Increase the Occupational Achievement of CTE Students (30 Hours)
- Utilizing Data Driven Decision-Making to Improve the Academic Achievement of CTE Students (30 Hours)
- Improving the Achievement of Special Education Students in Reading, Math and CTE (45 hours)
- Increasing Student Achievement by Utilizing the Standards Aligned System to Integrate Science, Technology, Engineering and Mathematics into CTE (40 hours)
- Utilizing the Standards Aligned System to Improve Career and Technical Achievement through Effective Teacher Supervision Strategies (30 Hours)
- Curriculum Leadership in CTE: Focusing on Aligning Curriculum with Industry Standards for Student Success (35 Hours)

PROFESSIONAL LEARNING COMMUNITIES (PLCs)

PLCs will be developed for instructors in three CTE programs: Automotive Technology, Carpentry and Cosmetology. These program instructors will work to improve student achievement on academic and occupational assessments. The PLCs will be targeted to instructors based on their discipline so that instructional strategies can be specially targeted to that particular discipline.