

Cybersecurity Career and Technical Education Programs

Career and Technical Education (CTE) programs have proven to be an effective approach to prepare secondary and postsecondary students to succeed in cybersecurity careers.

CTE provides students with the academic, technical, and employability skills through rigorous and applied coursework, work-based learning experiences, dual or concurrent enrollment, and industry-recognized certifications.

WHY CTE?

CTE provides opportunities for students to gain technical, academic, and professional leadership skills for college and career success.

- CTE works for high school students
- CTE works for college students
- CTE works for the economy
- CTE works for business



The top 3 benefits for students are the attainment of:

- **COMPETENCIES** to qualify them for a cybersecurity career
- **EMPLOYABILITY SKILLS** such as teamwork
- **REAL-WORLD EXPERIENCES** to apply learning



U.S. Department of Education, Office of Career, Technical, and Adult Education (OCTAE) provides

oversight regarding the preliminary structure of CTE programs. OCTAE administers CTE programs funded under the Perkins Act. Visit <http://cte.ed.gov>.

APPLIED LEARNING
on technical topics integrated with rigorous academics and employability skills

PORTABLE CREDENTIALS
such as industry-recognized certifications and college credits

PRACTICAL APPLICATION
of knowledge and skills through work-based experiences

Students can take advantage of CTE cybersecurity content through:

- Individual CTE courses
- Sequence of classes
- Career Academies
- Program of Study
- Content modules across the 16 career clusters

CTE Programs of Study (POS)

are authorized and funded through the Carl D. Perkins Career and Technical Education Act of 2006. A high-quality POS includes the



10 components of the **Programs of Study Design Framework**, such as:

- providing non-duplicative progression of courses that align secondary to postsecondary education;
- including opportunities for dual or concurrent enrollment programs;
- leading to an industry-recognized certification, certificate at the postsecondary level, or an associate or baccalaureate degree; and
- including work-based learning experiences, such as apprenticeships and internships.



The National Career Clusters® provides the organizing structure for delivering quality CTE programs with **16** career clusters and **79+** pathways.

Cybersecurity is most often included in the Information Technology Career Cluster.