

CTE Glossary

Quick links: [A](#) [B](#) [C](#) [D](#) [E](#) [F](#) [G](#) [H](#) [I](#) [J](#) [K](#) [L](#) [M](#) [N](#) [O](#) [P](#) [Q](#) [R](#) [S](#) [T](#) [U](#) [V](#) [W](#) [X](#) [Y](#) [Z](#)

A

Administration

The term “administration”, when used with respect to an eligible agency or eligible recipient, means activities necessary for the proper and efficient performance of the eligible agency or eligible recipient’s duties under this Act, including the supervision of such activities. Such term does not include curriculum development activities, personnel development, or research activities. A total of 5% of your grant funds may be allocated toward the administration of the grant, including any funds allocated to “[indirect cost](#)”.

All Aspects of the Industry

All aspects of the industry mean strong experience in, and comprehensive understanding of, different aspects of the industry that the individual is preparing to enter. Instruction should cover planning, management, finances, technical and production skills, underlying principles of technology, labor issues, and health and safety as follows:

- Planning – various forms of ownership, including cooperatives and worker ownership, and the relationship of the industry to economic, political, and social context.
- Management – methods typically used to manage enterprises over time, methods for expanding and diversifying workers’ tasks, and broadening worker involvement in decisions.
- Finance – ongoing accounting and financial decisions, and different methods for raising capital to start or expand enterprises.
- Technical and Production Skills – specific production techniques, alternative methods for organizing the production work, including methods which diversify and rotate workers’ jobs.
- Underlying Principles of Technology – integrated study across the curriculum of the mathematical, scientific, social, and economic principles that underlie the technology.
- Labor Issues – worker rights and responsibilities, labor unions and labor history, and methods for expanding workers’ roles.
- Community Issues – the impact of the enterprise and the industry on the community, and the community’s impact on and involvement with the enterprise.
- Health, Safety, and Environmental Issues – in relation to both the workers and the larger community.

All Students

The term “all students” means both male and female students from a broad range of backgrounds and circumstances, including disadvantaged students, special populations, students with diverse racial ethnic, or cultural backgrounds, American Indians, Alaska Natives, Native Hawaiians, students with disabilities, students with limited English proficiency, migrant children, school dropouts, and academically-talented students.

Apprenticeship (Registered)

See [Work-Based Learning](#).

Articulation Agreement

The term “articulation agreement” means a written commitment –

- (A) that is agreed upon at the State level or approved annually by the lead administrators of –
 - (i) a secondary institution and a postsecondary educational institution; or
 - (ii) a sub-baccalaureate degree granting postsecondary educational institution and a baccalaureate degree granting postsecondary educational institution; and
- (B) to a program that is –
 - (i) designed to provide students with a non-duplicative sequence of progressive achievement leading to technical skill proficiency, a credential, a certificate, or a degree; and
 - (ii) linked through credit transfer agreements between the 2 institutions described in clause (i) or (ii) of subparagraph (A) (as the case may be).

Please note: articulation agreements must be approved annually.

B

Blended Instruction

Blended instruction is the integration of academic and occupational concepts to provide students with a more coherent program of study. Blended Instruction allows every student to participate in challenging and purposeful studies that blend theory and application. Every student will demonstrate mastery of work-related and life skills required for a smooth transition into a globally competitive, technologically advanced, and service oriented society.

C

Career and College Ready

The [College and Career Readiness \(CCR\) and College Completion Act of 2013](#) (Senate Bill 740) established requirements designed to increase college and career readiness and degree completion of students in Maryland. College and Career Readiness means that a student is prepared to succeed in credit-bearing postsecondary introductory general education courses or industry certification programs, without needing remediation. College and career readiness includes mastery of rigorous content knowledge and the abilities to apply that knowledge through higher-order skills to demonstrate success in college and careers. This includes the ability to think critically and solve problems, communicate effectively, work collaboratively, and be self-directed in the learning process.

Career and Technology Education (or High Quality CTE)

The term ‘career and technology education’ means organized educational activities that offer a (progressive) sequence of courses that provides individuals with coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in current or emerging professions; provide technical skill proficiency, an industry-recognized credential, a certificate, or an associate degree; and may include prerequisite courses (other than a remedial course) and include applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of an industry, including entrepreneurship, of an individual.

Career and Technology Student Organizations (CTSO)

Organizations for individuals enrolled in career and technology education programs that engage students in activities as an integral part of the instructional program. Such organizations may have state, national, and international units that aggregate the work and purposes of instruction in career and

technology education at the local level. Examples of DCCR-supported organizations are [DECA](#), [FBLA](#), [FFA](#), [HOSA](#), and [SkillsUSA](#) as described in the Policies and Procedures for Implementing Career and Technology Education Student Organizations (found on [this web page](#)).

Career Guidance and Academic Counseling

The term ‘career guidance and academic counseling’ means guidance and counseling that provides access for students (and parents, as appropriate) to information regarding career awareness and planning with respect to an individual’s occupational and academic future; and provides information with respect to career options, financial aid, and postsecondary options, including baccalaureate degree programs.

Career Development

Career Development is the process through which an individual comes to understand his/her place in the world of work including the psychological, sociological, educational, physical, economic, and chance factors that combine to influence the nature and significance of work in an individual’s life.

Career Exploration

Career exploration is offered to assist students with career decision-making and facilitate the transition to postsecondary study and the world of work. Through planned activities, students assess career interests and work values; explore career clusters through interviews, job shadowing, speakers, and field trips; develop educational plans and course sequences; and develop resumes and portfolios to document educational and technical experiences needed to attain career goals.

Career Management

Career Management is the active and conscious participation in shaping one’s career and accepting responsibility for the activities and choices made toward that end.

Career Pathway/Major

Career Pathway/Major means a planned sequence of courses, both academic and technical, in a program of study that prepares a student for further education and a career. Academic content is aligned to the Maryland State Department of Education’s Voluntary State Curricula. A CTE program of study includes the sequence from grades nine through 12 and two or more years of postsecondary education courses (Tech Prep). The sequence of courses reflects the current state and local high school graduation requirements.

Career Portfolio

Career Portfolio is a valuable tool to expand self-knowledge, promote informed career decision-making, help students and adults make connections between education and employability skills, and document their skills. The actual portfolio can take several forms (e.g., a folder, a notebook binder, or computer disc). There are two broad types of career portfolios: those that have career development as their primary focus and those that have employability skill demonstration as their major focus.

A well designed career development portfolio guides one through the career development process serving as a sequential career-planning journal. It is both a process and a product. Supporting activities are provided as part of a process that helps students and adults reflect on who they are, make informed decisions, establish both career and educational goals, and craft a career plan for high school and beyond. The portfolio also contains some artifacts that showcase achievements and skills.

The skill demonstration or employment portfolio is a structured presentation of a person’s skills, best work samples, awards, achievements, certifications, and letters of recommendation. It usually contains a resume. The skill demonstration portfolio is designed to support with documentation a student’s comments during employment, college admission, and scholarship interviews.

Classification of Instructional Programs (CIP)

The program title identified by the local school system is used in the student course selection handbook. A resource for program titles is the Classification of Instructional Programs (CIP) published by the National Center for Education Statistics and available in electronic format at the [NCES web page](#).

Cluster Frameworks and Pathways

Career and technology education programs typically provide pathways for students to pursue within one of Maryland’s ten cluster areas:

- | | |
|--|----------------------------------|
| 1. Consumer Service, Hospitality and Tourism | 6. Health and Biosciences |
| 2. Business Management and Finance | 7. Arts, Media and Communication |
| 3. Manufacturing, Engineering Technology | 8. Transportation Technologies |
| 4. Information Technology | 9. Human Resource Services |
| 5. Environmental, Agricultural and Natural Resources | 10. Construction and Development |

A **career cluster** is a grouping of occupations and industries based on shared features or “core functions.” The cluster framework defines the scope of the industry, including the core business functions that are critical to the competitiveness and growth of the industry in Maryland. Career clusters provide a tool for schools to organize into small learning communities, academies, or magnet schools (through the use of pathways).

Career pathways are related programs of study that provide a multi-year sequence of career guidance, course work, and work-based learning experiences that enable students to make more informed career choices. Pathways are derived from the core functions of the cluster and include the major activities of each function.

Career and technology education programs of study are derived from the cluster framework and its accompanying pathways. Programs consist of a coherent sequence of secondary and postsecondary courses leading to a high school diploma, postsecondary degree, and/or an industry certification or credential.

Maryland’s Ten Career Cluster Frameworks can be found on either the [Maryland CTE Programs website](#) or the [Maryland State Department of Education website](#).

Competency/Performance-Based Instruction

A methodology of instruction that: (1) identifies the competencies needed for on-the-job performance; (2) informs students and teachers of precise and detailed learning objectives required to complete these competencies; (3) emphasizes high performance standards in testing, course requirements; and (4) facilitates learning by letting each student master the tasks prior to advancing to another. Also known as performance-based instruction.

Comprehensive Local School System Master Plan

The [*Bridge to Excellence in Public Schools Act*](#), signed into law in 2002, requires each school system to develop a comprehensive master plan that describes the goals, objectives, and strategies that will be used to improve student achievement for all students and to eliminate achievement gaps between subgroups of students. In addition, the Master Plan must clearly define how the local school system will meet state and local performance standards in each segment of the student population. By design, *Bridge to Excellence* requires school systems to integrate state, federal, and local funding initiatives and weave them into a comprehensive master plan. Specifically, the legislation requires the local school system to include in its master plan the goals, objectives, and strategies regarding the performance of students enrolled in career and technology courses and programs.

Core Indicators of Performance

Secondary Level

Each eligible agency shall identify in the State plan core indicators of performance for career and technical education students at the secondary level that are valid and reliable, and that include, at a minimum, measures of each of the following:

- (i) Student attainment of challenging academic content standards and student academic achievement standards, as adopted by a State in accordance with section 1111(b)(1) of the Elementary and Secondary Education Act of 1965 and measured by the State determined proficient levels on the academic assessments described in section 1111(b)(3) of such Act.
- (ii) Student attainment of career and technical skill proficiencies, including student achievement on technical assessments, that are aligned with industry recognized standards, if available and appropriate.
- (iii) Student rates of attainment of each of the following:
 - (I) A secondary school diploma.
 - (II) A General Education Development (GED) credential, or other State-recognized equivalent (including recognized alternative standards for individuals with disabilities).
 - (III) A proficiency credential, certificate, or degree, in conjunction with a secondary school diploma (if such credential, certificate, or degree is offered by the State in conjunction with a secondary school diploma).
- (iv) Student graduation rates (as described in section 1111(b)(2)(C)(vi) of the Elementary and Secondary Education Act of 1965).
- (v) Student placement in postsecondary education or advanced training, in military service, or in employment.
- (vi) Student participation in and completion of career and technical education programs that lead to non-traditional fields.

Postsecondary Level

Each eligible agency shall identify in the State plan core indicators of performance for career and technical education students at the postsecondary level that are valid and reliable, and that include, at a minimum, measures of each of the following:

- (i) Student attainment of challenging career and technical skill proficiencies, including student achievement on technical assessments that are aligned with industry-recognized standards, if available and appropriate.
- (ii) Student attainment of an industry-recognized credential, a certificate, or a degree.
- (iii) Student retention in postsecondary education or transfer to a baccalaureate degree program.

- (iv) Student placement in military service or apprenticeship programs or placement or retention in employment, including placement in high skill, high wage, or high demand occupations or professions.
- (v) Student participation in, and completion of, career and technical education programs that lead to employment in non-traditional fields.

CTE Program Completer

Any student who meets all of the course requirements outlined in the MSDE approved proposal for a CTE program. CTE programs typically include a minimum of four occupational credits in a planned, sequentially progressive program of study that integrates academic, technical, and workplace readiness skills. Most program completers also engage in one or more supervised work-based learning experiences.

CTE Program Concentrator

Secondary CTE program concentrators are those students who have enrolled in a designated concentrator course as described in the *Specifications Manual for Student Enrollment*. The concentrator course is one in a sequence of courses in a completer program and occurs after the student has completed 50 percent of the CTE program and represents the student's intent to be a CTE program completer.

Postsecondary CTE concentrators are those students who complete at least 12 academic or CTE credits within a single program area sequence that is comprised of 12 or more academic and technical credits and terminates in the award of an industry-recognized credential, certificate or degree.

CTE Program Enrollee

Any student enrolling in at least one course that is part of a state-approved CTE program of study. Procedures for reporting enrollees are described in the *Specifications Manual for Student Enrollment*.

CTE Program of Study - See [Maryland CTE Program of Study](#)

D

Displaced Homemaker

The term “displaced homemaker” means an individual who –

- (A)
 - (i) has worked primarily without remuneration to care for a home and family, and for that reason has diminished marketable skills;
 - (ii) has been dependent on the income of another family member but is no longer supported by that income; or
 - (iii) is a parent whose youngest dependent child will be ineligible to receive assistance under part A of title IV of the Social Security Act 942 U.S.C. 601 et seq.) not later than 2 years after the date on which the parent applies for assistance under such title; and
- (B) is unemployed or underemployed and is experiencing difficulty in obtaining or upgrading employment.

Dual Completer or Dual Completion

A “dual completer” is a secondary student who completes both the course requirements for admission to the University of Maryland system and the course requirements for a CTE program of study.

Dual Enrollment

Also known as concurrent enrollment; a "dual enrollment student" is defined as a secondary student who is enrolled in college courses and receives both high school and college credit for the courses completed. How and when the college credit is earned varies, depending upon the institution attended. (see [Transcribed Credit](#))

E

Employability Skills

Employability skills are skills that are essential for job success, but are not necessarily linked to specific occupational knowledge. In Maryland, these are known as Skills For Success and include: interpersonal, communication, thinking, technology and learning.

I

Indirect Costs

Costs incurred for common or joint objectives which cannot be identified readily and specifically with a particular sponsored project, instructional activity or other institutional activity, should be treated as indirect costs.

Individual with Limited English Proficiency

The term "individual with limited English proficiency" means a secondary school student, an adult, or an out-of-school youth, who has limited ability in speaking, reading, writing, or understanding the English language, and –

- (A) whose native language is a language other than English; or
- (B) who lives in a family or community environment in which a language other than English is the dominant language.

Individual with a Disability

(A) In General. – The term "individual with a disability" means an individual with any disability (as defined in section 3 of the Americans with Disabilities Act of 1990 (42 U.S.C. 12102)).

(B) Individuals with Disabilities. – The term "individuals with disabilities" means more than 1 individual with a disability

Internship See [Work-Based Learning](#).

J

Job Shadowing

Job shadowing, part of career exploration activities, is developmentally appropriate from kindergarten through adulthood. Through job shadowing, a student observes an employee to learn about a particular career cluster or industry. Job shadowing helps middle and elementary school students explore a range of career opportunities. Job shadowing experiences assist high school students with the exploration and selection of a career major. **Since job shadowing is exploratory in nature, it does not qualify for credit as a work-based learning experience as part of an approved CTE program.**

L

List A

List "A" is the list of CTE programs offered by local school systems and community colleges and is tied to the Federal Government's CIP code system. This list forms the basis of student enrollment and enrollment data processing by the MSDE. List "A" programs are eligible to use federal funds

under the State Plan for Career and Technology Education and the Carl D. Perkins Career and Technical Education Improvement Act of 2006. List "A" is verified on an annual basis to ensure that programs are added or deleted as needed.

Both Secondary and Postsecondary CTE programs of study are added to List "A" through an approval process described in the *Specifications Manuals*. The list includes state developed CTE programs of study as well as locally developed CTE programs of study that have been approved by the MSDE through the DCCR.

Postsecondary CTE programs of study are added to List "A" only after the program has been approved by the Maryland Higher Education Commission and the community college requests that it be added. This includes certificate and degree programs in career and technical education (occupational) areas.

Local Advisory Council (LAC)

The LAC is responsible for advising the overall system of CTE. The members participate in long-range, strategic planning to help position the system of CTE to obtain visibility, credibility, and resources. The LAC reviews labor market demand data and assists the system in identifying critical shortage areas and economic development needs. Members of the LAC assist in determining which clusters to implement, which programs to offer/improve. They evaluate the program with an eye toward continuous improvement and provide annual report on the system's accomplishments and needs.

Local CTE Plan for Program Improvement

The Local CTE Plan for Program Improvement is a comprehensive plan, which describes how career and technology education programs will be improved to meet state standards and performance levels. This plan is organized around the four Core Indicators of Performance as described in the [Carl D. Perkins Career and Technical Education Improvement Act of 2006, Public Law 109-270](#). The Local CTE Plan for Program Improvement serves as the catalyst for describing how to close the gap between local performance and state-established levels of performance. All available sources of revenue are listed, along with specific programs, identified by CIP number and sites where the programs are offered. In addition, this plan requires a description of the planned improvement, the desired outcomes, how the outcomes will be measured, and other required elements as described in the federal statute.

M

Maryland CTE Programs of Study

Maryland CTE Programs of Study are based on the proposal development process with involvement by one or more of the cluster teams in the Division of Career and College Readiness and meets all or most of the criteria outlined in Appendix D of the [Policies and Procedures for the Development and Continuous Improvement of CTE](#). The cluster team leader convenes or endorses a design team consisting of employers as well as secondary and postsecondary educators. CTE State Programs of Study are approved that demonstrate the levels of accountability, structure, and support to ensure program quality and replication. The approval process is simplified for local CTE directors since the contents of the program are standardized.

N

Non-traditional fields

The term “non-traditional fields” means occupations of fields of work, including careers in computer science, technology, and other current and emerging high skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work. The list can be found in the *Specifications Manual* ([secondary](#) / [postsecondary](#)).

P

P-TECH

[P-TECH](#) schools are grade 9-to-14 public schools that create clear pathways from high school to college and career for young people from all academic backgrounds. In six years or less, students earn a high school diploma, an industry-recognized no-cost 2-year associate degree, and gain relevant work experience in a growing or emerging field. Each P-TECH school works with industry partners and a local community college to ensure an up-to-date curriculum that is academically rigorous and economically relevant. The program also includes one-on-one mentoring, workplace visits and skills instruction, paid summer internships and first-in-line consideration for job openings with a school's partnering company.

Program Advisory Committees (PACs)

PACs are composed of representatives of a cluster/pathway/program who can advise on the development of high-quality CTE programs that have enough breadth, depth, and academic rigor to constitute a complete program.

S

School Dropout

The term “school dropout” means an individual who is no longer attending any school and who has not received a secondary school diploma or its recognized equivalent.

Sequence of Courses

This indicates the planned progressive sequence of courses, both academic and technical, in the program of study. At a minimum, this will include the progressive sequence from grades 9 through 12 and two years of postsecondary courses. The sequence of courses reflects the current state and local high school graduation requirements.

Skill Standards

A skill standard specifies the knowledge and competencies required to perform successfully in the workplace. Standards are developed along a skill continuum ranging from general work readiness skills, and core skills or knowledge for an industry, to skills common to an occupational cluster, and specific occupational skills. Standards may cover basic and advanced academic competencies, employability competencies, and technical competencies. Development of these standards is tied to efforts to certify students’ and workers’ skills for a given career pathway.

Special Populations

The term ‘special populations’ means –

- (A) individuals with disabilities;
- (B) individuals from economically disadvantaged families, including foster children;
- (C) individuals preparing for non-traditional fields;
- (D) single parents, including single pregnant women;
- (E) displaced homemakers; and

(F) individuals with limited English proficiency.

Support Services

The term “support services” means services related to curriculum modification, equipment modification, classroom modification, supportive personnel, and instructional aids and devices.

T

Transcribed Credit

For a student to earn transcribed credit there must be an agreement between the secondary and postsecondary institution. A secondary student pursues virtually the same coursework at their local high school as if they were on the college campus, using the same materials and a certified instructor. If the student earns a passing grade, they receive a transcript for that course. Those credits may be able to be transferred to a four-year college in addition to the community college.

W

Work-Based Learning (Cooperative Career and Technology Education)

Activities at the high school and college levels that involve actual work experience and connect classroom learning to work. This is an all-encompassing term that includes: apprenticeships, cooperative education, and internships.

Supervised work-based learning experiences are designed to provide meaningful work experience as an integral part of the regular career and technology curricula. They require a partnership involving the education system, business and industry, community agencies and organizations, and the family.

Cooperative career and technology education is a method of education for students who, through written cooperative arrangements between a school and employers, receive instruction, including required rigorous and challenging academic courses and related CTE instruction, by alternating study in school with placement in a related career field. These experiences are organized around a training plan that is cooperatively developed by the school and employer to add value to and extend a student’s career preparation. This instruction is planned, organized, and coordinated to assure that each component contributes to the student’s education and employability. Cooperative education is provided in one of three major formats: capstone, integrated, and diversified.

- **Apprenticeship:** Apprenticeship is a voluntary, industry-driven program sponsored by employers, employer associations, and jointly by management and labor. An apprentice, as an employee, receives supervised, structured, on-the-job training combined with related technical instruction in a specific occupation. Apprenticeship is open to anyone age 16 or older; however, an employer may set a higher entry age. Individuals must be age 18 to apprentice in specified hazardous occupations. A training program must be at least 2,000 hours in duration to be considered as an apprenticeable occupation. The [Maryland Apprenticeship and Training Council](#) is the registration agency for apprenticeship programs. The Apprenticeship and Training Council has approved and registered programs in 207 occupations. For additional information, contact:

Division of Workforce Development and Adult Learning
Maryland Apprenticeship and Training Program
1100 N. Eutaw Street - Room 209, Baltimore, MD 21201
Phone: 410-767-2246 / Fax: 410-767-2986
Email: dllr@maryland.gov

- **Capstone Work-based Learning:** The on-the-job component of the program is subsequent to the in-school, skill development component. Students are placed at training sites that have the potential to extend and refine competencies that are developed in the in-school component.
- **Career Research and Development:** The major portion of skill development is provided through on-the-job work experience based on a training agreement (signed by the parent, student, employer, and work-based learning coordinator). The in-school component is concurrent with the on-the-job component and is general in nature rather than directly related to the occupation or placement. The program consists of at least two in-school credits and two on-the-job. The occupational placements are targeted employment opportunities for which an in-school career and technology program does not exist. This option exists when CTE programs are over-enrolled or when a program is unavailable for students.
- **Integrated Work-based Learning:** The on-the-job component of the program is entered after some in-school skill development, and the in-school skill development component is maintained concurrent with on-the-job experience. Students are placed at training sites that have potential to complement the in-school component.
- **Internships:** Internships are short-term, paid or unpaid experiences that offer students a chance to work under the tutelage of employers and experience on-the-job training in a mentoring relationship. Students work with an employer to learn about a particular industry or career pathway. Workplace activities may include special projects, a sample of tasks from different jobs, or tasks from a single career pathway.
- **School-Sponsored or School-Based Enterprise or In-School Clinic:** A school-sponsored enterprise or clinic is an enterprise in which goods or services are produced by students as part of their school program. School-sponsored enterprises or clinics typically involve students in the management of a project that may involve the sale of goods or services for use by others. Enterprises may be undertaken on or off the school site, but are always part of the school's program.