Delaware Department of Education
Career & Technical Education

CTE Programs of Study
Policies and Procedures

Academic Support Team

Career & Technical Education and STEM Office

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Delaware Career & Technical Education Vision, Mission, and Core Values

The Delaware Department of Education (DDOE) is committed to serving every student and ensuring that all children are college and career ready. This expectation has shaped extensive school reform, including the alignment of academic and technical instruction within a comprehensive model of Career and Technical Education (CTE) that reflects the needs of our economy and creates a systemic process for career preparation. This document serves as a guide to support the implementation of high quality CTE programs of study across Delaware's secondary and postsecondary education system.

Vision — Every learner ready for success in college, career, and life.

Mission — To empower every learner with the highest quality education through shared leadership, innovative practices, and exemplary services.

Delaware Department of Education
Career & Technical Education Core Values

Value & Responsibility – we strive to continuously improve all aspects of our work and create value for our customers, stakeholders, and students.

Shared Leadership & Accountability – we model leadership by taking actions that are ethical and reasonable to create shared accountability amongst stakeholders.

Collaboration & Expectation – we value the input and contribution of all stakeholders and work collaboratively to exceed expectations.

Communication & Public Responsibility – we communicate through clear and concise methods to engage the public and accelerate our work.

Career & Technical Education Theory of Action

If students participate in Career & Technical Education programs that are driven by the economy, developed in partnership with relevant stakeholders, provide early college and career experiences, as well as connect academic and career success measures…

then students will engage in learning to master academic, technical, and career skills that prepare them for high school graduation, postsecondary education, and competitive employment in high skill, high wage, in-demand careers.

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The Delaware Department of Education's Academic Support team has defined a model of career preparation that includes a state-led effort in Career and Technical Education (CTE) and the development of statewide CTE programs of study in demand-driven occupations. Each CTE program of study seamlessly aligns academic and technical instruction to meet the prerequisite expectations of employers and ensures that every child has the opportunity to continue their education and seek career success. Postsecondary CTE programs span short- and long-term credential programs, the registered apprenticeship system, and two-year degree programs to create a system of stackable credentials and connected degree programs. This work is guided by three key principles and the belief that CTE programs of study:

1. **Prepare students for career success and postsecondary education.**

    The terms "career ready" and "college ready" are synonymous. In order to earn a livable wage in today's economy, every student must possess a credential beyond a high school diploma and be prepared to continue their education in the form of two- and four-year college or university, certification programs, apprenticeship, formal job training, or military service. CTE programs of study align academic and technical knowledge at the secondary and postsecondary levels by creating multiple connected entry and exit points for students to pursue a career and continue their education. Students who complete a CTE program of study have the opportunity to earn an industry recognized credential and continue their education while simultaneously engaging with employers to familiarize themselves with the culture of work.

2. **Align with workforce needs and are developed in partnership with relevant stakeholders.**

    A dynamic workforce development system begins in the K-12 setting and involves established relationships with state agencies, service providers, business representatives, and institutions of higher education. These partners play a vital role in aligning education and training programs to ensure that students and adults can move efficiently into employment. The DDOE partners with a variety of stakeholders, including business associations and institutions of higher education, to continuously improve Delaware's career preparation system and to guide the development and implementation of CTE programs of study that are responsive to the changing workforce needs. CTE programs of study establish a direct link between the public education system, registered apprenticeship, postsecondary education, and changes in regional employment demand and supply.

3. **Improve student achievement by connecting academic and career success measures.**

    Programs of study measure student achievement in academic and technical areas and promote employability skills. They produce higher levels of student achievement by defining a rigorous technical and academic course sequence at the secondary and postsecondary levels that relates to a student's career aspirations. Further, CTE programs of study provide a context for students to apply knowledge and career ready practices through project and problem-based learning that is authentic and reflects real-world application. The DDOE, local education agencies, and postsecondary institutions collect and use these data to drive a process of continuous program improvement,

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including making decisions regarding the viability of existing programs. State and local outcome data serve as a means of benchmarking program of study performance, closing achievement gaps, and ensuring every student becomes college and career ready.

The Career Pathway System

The *Career Pathway System* represents the alignment of rigorous and high-quality education, training, and support services for students and adults to accelerate their education and career goals, demonstrate success in a full range of secondary and postsecondary education options, and pursue a meaningful career within a state or regional economy. Workforce development efforts within the *Career Pathway System* are anchored in the analysis of labor market information for demand-driven occupations, the use of evidence-based education and workforce development practices, and sector partnerships that connect employers, educational institutions, and services providers.

In Delaware, the *Career Pathway System* begins in the public education system through the development and implementation of CTE programs of study and continues through adult education and occupational training programs which are administered by partnering state agencies, institutions of higher education, registered apprenticeship programs, and other service providers. CTE programs of study interconnect with the *Career Pathway System* by aligning secondary and postsecondary education programs that concurrently pair rigorous academics with workforce education within the context of a specific occupation or occupational cluster. This includes opportunities for students to participate in career counseling, defined work-based learning experiences that engage employers, and registered youth apprenticeship programs. These activities help students and adults to achieve their education and career goals as well as enter or advance in a career.

Delaware CTE programs of study are an essential component of Delaware's workforce development system. As such, the DDOE employs a comprehensive model of workforce development that provides students with multiple entry and exit points to successfully pursue a career and continue their education. Students who complete a CTE program of study will attain a secondary school diploma or its equivalent and a stackable industry recognized credential, certificate, or license which holds value at the professional level, postsecondary level, in a registered apprenticeship program, and/or in a connected Associate or Baccalaureate degree program.

The Career Clusters Framework®

The *Career Clusters Framework®* (see Appendix A) is an occupational coding structure that classifies CTE programs of study under a hierarchy of related career areas called *Career Clusters* and more specific occupational groupings called *Career Pathways*. The framework groups occupations into related areas that represent a segment of the economy and define the technical and academic skills required for career success. These expectations help to group occupation specific education and training programs into *Career Pathways* and assist states and local education agencies (LEAs) to work with partnering institutions of higher education to develop *programs of study* or aligned educational

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programs that bridge secondary and postsecondary instruction. *Programs of study* help students to discover their career interests and choose an educational path that leads to success in high school, opportunities for postsecondary education, and employment. For the list of all *Career Clusters* and their related *Career Pathways* please visit the Advance CTE website (see Appendix A).

The DDOE is committed to assisting LEAs and postsecondary institutions with the development, implementation, and continuous improvement of CTE *programs of study* that contribute to Delaware's economic development efforts and are in alignment with the state and regional workforce needs. As such, the *Career Clusters Framework®* provides a hierarchy to classify CTE *programs of study* and benchmark student outcome data to close achievement gaps. Additionally, the framework helps to align CTE programs of study to related occupations and relevant labor market information, ultimately connecting students to continuing education and a career.

Career Clusters are broad occupational groupings that define a set of common knowledge and skills required to be successful in a career area. Delaware has adopted the *Career Clusters Framework®* which helps to connect academic, technical, and employability skills within an occupational framework that is industry-focused, student-centered, and performance-driven. Each Delaware CTE *program of study* is structured within one of the sixteen (16) career clusters and leads to employment and postsecondary education. For more information on knowledge and skill statements specific to each *Career Cluster*, please visit the Advance CTE website (see Appendix A).

National Career Clusters®

- Agriculture, Food, & Natural Resources
- Architecture & Construction
- Arts, A/V Technology & Communications
- Business Management & Administration
- Education & Training
- Finance
- Government & Public Administration
- Health Science
- Hospitality & Tourism
- Human Services
- Information Technology
- Law, Public Safety, Corrections & Security
- Manufacturing
- Marketing
- Science, Technology, Engineering & Mathematics
- Transportation, Distribution & Logistics

Career Pathways represent the alignment of education and training programs for a specific occupation or occupational cluster and help students advance through higher levels of education and employment. *Career Pathways* begin in the public education system through the development and implementation of CTE secondary programs of study and continue through adult education and occupational training programs. This includes opportunities for students to participate in career counseling, defined work-based learning experiences that engage employers, and registered youth apprenticeship programs. These activities help students to achieve their education and career goals as well as enter or advance in a career. *Career Pathways* are grouped around core knowledge and skills needed for career success and are used to develop and/or align curriculum,
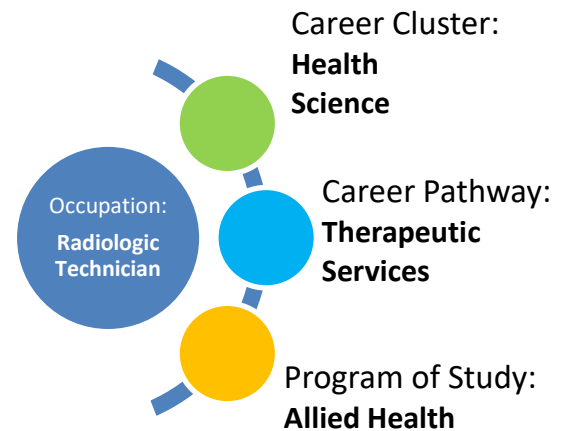
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assessments, and instructional supports. Delaware secondary CTE *programs of study* are structured within a *Career Pathway* to connect education programs to a specific set of occupations.

Delaware Administrative Code [14 DE Admin. Code 505] (see Appendix A) requires that a public high school student be granted a State of Delaware Diploma when such student has successfully completed a minimum of twenty two (22) credits, including three (3) credits in a Career Pathway. A Delaware Career Pathway is defined as three credits of planned and sequential courses designed to develop knowledge and skills in a particular career or academic area. In this instance, the term Career Pathway is applied generally and refers to any sequence of courses where a LEA or Charter School Board has established policies concerning the purpose, content, development, and approval of such Career Pathway [14 DE Admin. Code 505] (see Appendix A). Students who complete the secondary portion of a state approved CTE *program of study* have met the Delaware Career Pathway requirement for high school graduation.

Programs of Study provide a structured approach for delivering academic and career & technical education (CTE) through an aligned sequence of courses that build on each other through secondary and postsecondary instruction. *Programs of study* provide multiple, equitable, routes to completion, bridge dual enrollment and dual credit opportunities across programs, and create intentional avenues for accelerated time to completion and credit for prior learning at the postsecondary level. In Delaware, students who complete a secondary CTE program of study will attain a secondary school diploma or its equivalent and a stackable industry recognized credential, certificate, or license which holds value at the professional level, postsecondary level, in a registered apprenticeship program, and/or in a connected associate or baccalaureate degree program.

Career Cluster:
Health Science

Occupation:
Radiologic Technician

Career Pathway:
Therapeutic Services

Program of Study:
Allied Health

Postsecondary *CTE programs* align with the needs and expectations of business and industry and provide students with opportunities to engage employers, participate in work-based learning experiences, and apply academic and technical knowledge. In Delaware, postsecondary CTE programs span short- and long-term credential programs, the registered apprenticeship system, and two-year degree programs to create a system of stackable credentials and connected degree programs.

The Strengthening Career and Technical Education for the 21st Century Act (Perkins V) calls for states to offer CTE programs of study which may be developed or adopted by LEAs and postsecondary institutions as an option for students to plan and complete future coursework. All eligible recipients of Perkins V (LEAs and postsecondary institutions) are required to offer at least one CTE program of study.

Student Success Plans encompass a minimum of six years (8th through 12th grade and one-year beyond

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high school) and provide students with an opportunity to set education and career goals based on their academic and career interests [14 DE Admin. Code 507] (see Appendix A). The student success plan (SSP) represents a fluid, yet sequential plan that is benchmarked to the interests and needs of a student. The plan connects students with the larger community and is guided by an advisement process that includes school staff, parents and/or guardians/caregivers, and career coaches or mentors. The SSP is a necessary tier one (1) component of a multi-tiered system of support (MTSS) at both the secondary and postsecondary level.

Local education agencies develop Postsecondary Advisement Plans that describe the targeted supports, activities, experiences, lessons, and advisement every student will receive from 8th to 12th grade. This plan is reported on annually and designed to help students make a successful and informed transition to their postsecondary goals in alignment with the Student Success Plan.

Delaware Pathways is a vehicle to ensure all students have the opportunity to fulfill their educational goals and career aspirations (see Appendix A). Career pathways begin in the public education system through the development and implementation of CTE programs of study. The *Delaware Pathways* initiative engages a working group of leaders from state agencies, postsecondary institutions, nonprofits, and the business community.

> **Delaware Pathways Mission Statement**
>
> **Increase the number of Delawareans who continue their education and enter the labor market in a demand-driven occupation with work experience and an industry-recognized certificate, license, or credential through the alignment of secondary and postsecondary educational programs and a network of engaged employers.**

Delaware Pathways allow students to explore their career interests, evaluate their career options, and gain real-world skills and work experience throughout their education. Work-based learning activities culminate in career immersion experiences that provide students with authentic work experiences to demonstrate academic and technical knowledge and skills and further refine those skills in the marketplace. Delaware's CTE programs of study offer a full range of activities from career awareness through immersion, all within the state career pathway system.

Delaware Pathways help students discover their talents and develop technical skills resulting in accelerated student academic achievement and reduced barriers related to continuing education and career entry, and is organized around five core priorities:

1. Build a comprehensive system of career preparation that aligns with the state and regional economies;
2. Scale and sustain meaningful work-based learning experiences;
3. Integrate Delaware's education and workforce development efforts and data systems;
4. Coordinate financial support for Delaware Pathways; and
5. Engage employers, educators, and service providers to support Delaware Pathways.

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Delaware BRIDGE organizes a workforce preparation framework that prioritizes and integrates work-based learning (WBL) and social and emotional learning (SEL) aligned competencies. Delaware BRIDGE represents a broad cross-section of leaders who envision an aligned education and workforce preparation system that empowers every student to achieve purpose, place, and plans for the future. The goal is to connect and strengthen this system so the next generation workforce emerges stronger, with adaptive assets to navigate the changing world and way of work.

This effort builds on the Delaware Pathways initiative and highlights alignment of SEL competencies and workforce preparation standards, foundational element of this work, along with aligned SEL and academic standards. The Delaware BRIDGE core leadership team and working group organized to address barriers for youth preparing to enter the workforce during an uncertain time in history in support of their learning and skill development. Please contact the DDOE's CTE & STEM policy advisor (see Appendix B) for technical assistance and additional information regarding the Delaware BRIDGE crosswalk, toolkit, and resources.

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Career & Technical Education Program of Study Overview

Local Education Agencies (LEA) seeking approval for a secondary Career and Technical Education (CTE) program of study will submit an application using the process outlined in Section III of this document – *Completing a Delaware CTE Program of Study Application.* Postsecondary institutions are not required to submit an application for program approval but are encouraged to adopt similar best practices when developing, implementing, and evaluating their programs. Requests for secondary program of study approval may be submitted for the following:

1. Adoption of a Delaware state-model CTE program of study; or
2. Development of a local CTE program of study.

The LEA shall employ a system-wide approach to develop and implement CTE programs of study in emerging industry sectors and eliminate programs that are underperforming. This work will be done in conjunction with a program advisory committee that is charged to review and establish CTE programs of study. To adopt a state-model CTE program of study or design a local CTE program of study the advisory committee will use local, state, and regional labor market information to assess the related employment needs and begin the process of adoption or development.

For existing CTE programs, the advisory committee will assess the performance of a CTE program of study and identify appropriate next steps to ensure the program reflects core functions of the industry sector as well as current and future workforce development needs. This will include the transition to a state-model CTE program of study or the elimination of programs when they are no longer relevant to the industry sector or if the program is underperforming. Minutes from all program advisory committee meetings must be recorded and reflective of decisions made by committee members.

Leaders at the LEA level are encouraged to contact the DDOE CTE & STEM policy advisor (see Appendix B) for technical assistance should the LEA wish to adopt a state-model CTE program of study or develop a local CTE program of study. Postsecondary institutions are encouraged to contact the DDOE Postsecondary Program Education Associate (see Appendix B) for technical assistance. The DDOE will commit a subject matter expert to provide technical assistance as needed. All applications for secondary state-model or local CTE programs of study must be approved by the Department of Education. All CTE programs of study will be monitored on a five-year cycle to ensure continuous program improvement.

Adopting a Secondary State-Model CTE Program of Study
This section applies to LEAs that do not offer a CTE program of study for a desired occupation or occupational cluster and wish to use an established instructional model to guide work at the local level. Each state-model CTE program of study is mapped to a demand driven occupation, includes a defined course sequence and instructional outline, opportunities for students to participate in a registered youth

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or pre-apprenticeship program and/or earn postsecondary credit, as well as an industry recognized credential, support for school administrators and counselors, and course specific professional learning opportunities for teachers. Further, all Delaware state-model CTE programs of study are developed in conjunction with representatives from business and industry, secondary and postsecondary educators, and community stakeholders.

A current list of all secondary state-model CTE programs of study (see Appendix A) is available on the DDOE website. When a LEA successfully applies for and adopts a state-model CTE program of study, all program requirements must be adhered to without modification; however, LEAs are encouraged to continuously improve the instructional model and identify best practices to meet the unique needs of the local community and students that are served. State-model CTE programs of study undergo a review cycle on a five year basis (see Phase 3: Continuous Improvement).

Each state-model CTE program of study is available for LEA consideration and adoption. The DDOE CTE & STEM education associates (see Appendix B) will provide leadership and technical assistance to LEAs to successfully adopt, deliver, and continuously improve state-model CTE programs of study. The following documents are required for CTE program of study approval and have been completed to the extent possible for all state-model CTE programs of study. As an LEA considers the adoption of a state-model CTE program of study, the following resources should be reviewed and updated as necessary:

- The *Delaware CTE Program of Study Application* is available for all state-model CTE programs of study (see Appendix A) on the DDOE website. The application must be reviewed and completed by the LEA per the instructions in Section III of this document and submitted for program approval to the DDOE. This includes the application cover page, a list of program advisory committee members, the identification of value-added opportunities for students, and completion of the *Delaware CTE Program of Study Application*;

- The *Labor Market Information (LMI) Review* document has been completed for state-model CTE programs of study (see Appendix A) and the DDOE has published a corresponding real-time LMI report. This information should be used by the LEA to engage their program advisory committee and as background information to better understand employment and the prospective job market; and

- A *Memorandum of Understanding* (MOU) has been negotiated with partnering institutions of higher education for *Delaware CTE Program of Study Application* to serve as a statewide *Articulation/Dual Enrollment Agreement*. The MOU and subsequent benefit to students are inclusive of all LEAs that adopt and are approved to offer the state-model CTE program of study.

Transitioning to a Secondary State-Model CTE Program of Study
This section applies to LEAs that currently offer an approved CTE pathway, but wish to transition the existing instructional model to a state-model CTE program of study. When transitioning a previously approved CTE pathway to a state-model CTE program of study, the LEA will convene a program advisory committee to determine the need for transition and build an appropriate plan of work. The transition plan is a local tool and should include:

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- How the existing CTE pathway will be phased out without negatively impacting students;
- How the new state-model CTE program of study will be implemented; and
- The process for continuous program improvement.

The program advisory committee and the LEA will determine the need to transition to a state-model CTE program of study and document action. The program advisory committee and LEA shall make the local community aware of the discussion and build community support for the transition. Further, the LEA shall work with teachers, school counselors, and school administrators to inform staff of the transition and work to identify potential student enrollment. Communication with all relevant stakeholders is essential to transition from a previously approved CTE pathway to a state-model CTE program of study. The LEA is encouraged to work purposefully and include input from a variety of stakeholders to support the transition.

The Delaware CTE & STEM office is committed to supporting the LEA's adoption and successful implementation of a state-model CTE program of study. Technical assistance will be provided by the DDOE CTE & STEM education associates (see Appendix B) and will be customized to reflect the needs of the LEA throughout the transition.

Postsecondary Program Requirements

Postsecondary CTE programs link to secondary and postsecondary local education agencies, two- and four-year higher education institutions, as well as to the adult basic education system and the prison education system. These designed points of entry and transition create opportunities for youth and adult learners build skills to enter and progress through education and training systems and placement into employment. Further, this work expands access to CTE programs for special populations and reflects Delaware's career pathway system and shared education and workforce goal to increase the number of youth and adult learners with valued industry credentials and degrees. Collaboration amongst these system providers is organized though state leadership activities and financial support.

Credential programs are required to meet the shared expectations of the Delaware Department of Education and the Delaware Workforce Development Board. This effort seeks to align administrative processes for education and training providers operating postsecondary CTE programs under the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) and adult programs operating under the Workforce Innovation and Opportunities Act (WIOA).

High-quality, Perkins eligible postsecondary short-term credential programs must meet the following criteria as outlined in the Delaware State Plan for Career and Technical Education:

1. Provide not less than one hundred and forty-four (144) clock hours and not more than six hundred (600) clock hours of instructional time, and may:
   a. include integrated education and training, not to exceed more than fifty percent (50%) of the minimum clock hours required for training; and

> b. measure the prior proficiency (e.g. through credit for prior learning or pre-assessment of skill/proficiency) of the student and award related clock hours as a means to accelerate that student to complete the program, not to exceed more than fifty percent (50%) of the minimum clock hours required for training.

2. Ensure training is aligned with those middle- and high-skill occupations or in-demand occupations in the State as determined by the Delaware Workforce Development Board;
3. Provide to students, upon completion of the program, a recognized postsecondary credential that meets the hiring requirements of potential employers;
4. Provide to students, upon completion of the program, a recognized postsecondary credential that satisfies any applicable educational prerequisite requirement(s) for professional licensure or certification, so that students who complete the program and seek employment qualify to take any licensure and certification examination needed to practice or find employment in the State of Delaware or in an occupation that the program prepares students to enter; and
5. Provide to students, upon completion of the program and/or attainment of the credential, with the equivalent academic credit of such credential that may be applied to subsequent credit-bearing certificate or degree programs upon enrollment in such program at any eligible postsecondary institution defined in the Delaware State Plan for Career and Technical Education and at two- and four-year degree institutions.

Any postsecondary institution may request an exemption to the minimum clock hour requirement for short-term credential programs, provided the program meets all other criteria and the institution has historical record of student achievement in attaining a valued postsecondary credential and documentation of past student placement into the workforce and/or higher levels of education (see Appendix C).

Long-term credential programs shall follow those guidelines for Pell eligibility as defined under the Higher Education Act. In addition, long-term credential programs must:

1. Provide not less than six hundred (600) clock hours of instructional time, and may:
   a. include integrated education and training, not to exceed more than fifty percent (50%) of the minimum clock hours required for training; and
   b. measure the prior proficiency (e.g. through credit for prior learning or pre-assessment of skill/proficiency) of the student and award related clock hours as a means to accelerate that student to complete the program, not to exceed more than fifty percent (50%) of the minimum clock hours required for training.
2. Ensure training is aligned with those middle- and high-skill occupations or in-demand occupations in the State as determined by the Delaware Workforce Development Board;
3. Provide to students, upon completion of the program, a recognized postsecondary credential that meets the hiring requirements of potential employers;
4. Provide to students, upon completion of the program, a recognized postsecondary credential that satisfies any applicable educational prerequisite requirement(s) for professional licensure or certification, so that students who complete the program and seek employment qualify to take any

licensure and certification examination needed to practice or find employment in the State of Delaware or in an occupation that the program prepares students to enter; and

5. Provide to students, upon completion of the program and/or attainment of the credential, with the equivalent academic credit of such credential that may be applied to subsequent credit-bearing certificate or degree programs upon enrollment in such program at any eligible postsecondary institution defined in the Delaware State Plan for Career and Technical Education and at two- and four-year degree institutions.

Postsecondary Credential criteria is established by the Delaware Department of Education to recognize credentials as high-quality program measures at the postsecondary level. As such, postsecondary industry credentials must be:

1. Offered through a proctored examination approved by a credentialing agency (e.g., NCCER); and
2. Stackable (i.e. the skills acquired lead to opportunities for continuous or advanced training and education) by:
    a. connecting secondary-to-postsecondary and postsecondary-to-postsecondary education programs in the form of advanced standing, accelerated time to completion, and/or credit for prior learning at an institution of higher education;
    b. satisfying prerequisite requirements to obtain a related or advanced recognized credential and/or providing advanced standing, accelerated time to completion, and/or credit for prior learning within an industry recognized training or Delaware Department of Labor approved apprenticeship program; or
    c. leading to employment in aligned occupations (e.g., endorsed by an employer or employer association as having value in the industry regionally or nationally, supports cross-industry migration, and/or meets prerequisites required to enter or advance within the specific industry).

In addition, a recognized industry credential must meet at least one (1) additional criteria:
1. Valued and demanded by employers: aligned to in-demand occupations in the state and portable within or across industries throughout the state or geographic region; and/or
2. Marketable: leads to employment, higher wages, career advancement, and/or increased job security.

Postsecondary CTE programs that do not include the opportunity to earn at least one recognized credential may not be eligible for funding under Perkins V.

State Registered Apprenticeship Programs are required to follow the training requirements under [19 DE Admin. Code 1101] (see Appendix A). All pre-apprenticeship programs must meet the Delaware Department of Labor requirements as defined in Delaware's Registered Pre-Apprenticeship Policies and Procedures guidance. Registered Apprenticeship, Youth Apprenticeship, and Pre-Apprenticeship program requirements follow:

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Registered Apprentice Programs (RAP):

1. are employer-driven, "earn while you learn" model that combines on-the-job training with job-related classroom/lab instruction;
2. require that wages increase as a registered apprentice progresses through the program; and
3. result in a nationally recognized Journeyperson's certificate.

A registered apprentice in a Perkins eligible program:

a. learns an apprenticeable trade as determined by United States Department of Labor;
b. has no upper age limit;
c. participates in aligned technical and on-the-job training opportunities; and
d. is sponsored by their employer or another authorized organization.

Youth Apprentice Programs:

1. meet the same requirements as Registered Apprenticeship Programs.

A youth apprentice in a Perkins eligible program:

a. is a registered apprentice during high school;
b. participates in and may continue related technical instruction through a postsecondary Perkins eligible RAP;
c. participates in and may continue aligned technical and on-the-job training opportunities through a postsecondary Perkins eligible RAP; and
d. may enroll with advanced standing in a Perkins eligible RAP for up to three years after graduation from high school.

Pre-Apprentice Programs:

1. do not require the employment aspect of a RAP or reach the depth or breadth of content; and
2. are used as an entry point or to prepare individuals for a RAP with the goal of preparing them to enter and complete a RAP.

A Perkins eligible pre-apprentice program:

a. is intended to create a pipeline of registered apprentices ages 16 and up;
b. must utilize a curriculum approved by the Delaware Department of Labor; and
c. must provide advance standing in an aligned RAP for up to three years after successful completion of the pre-apprenticeship program.

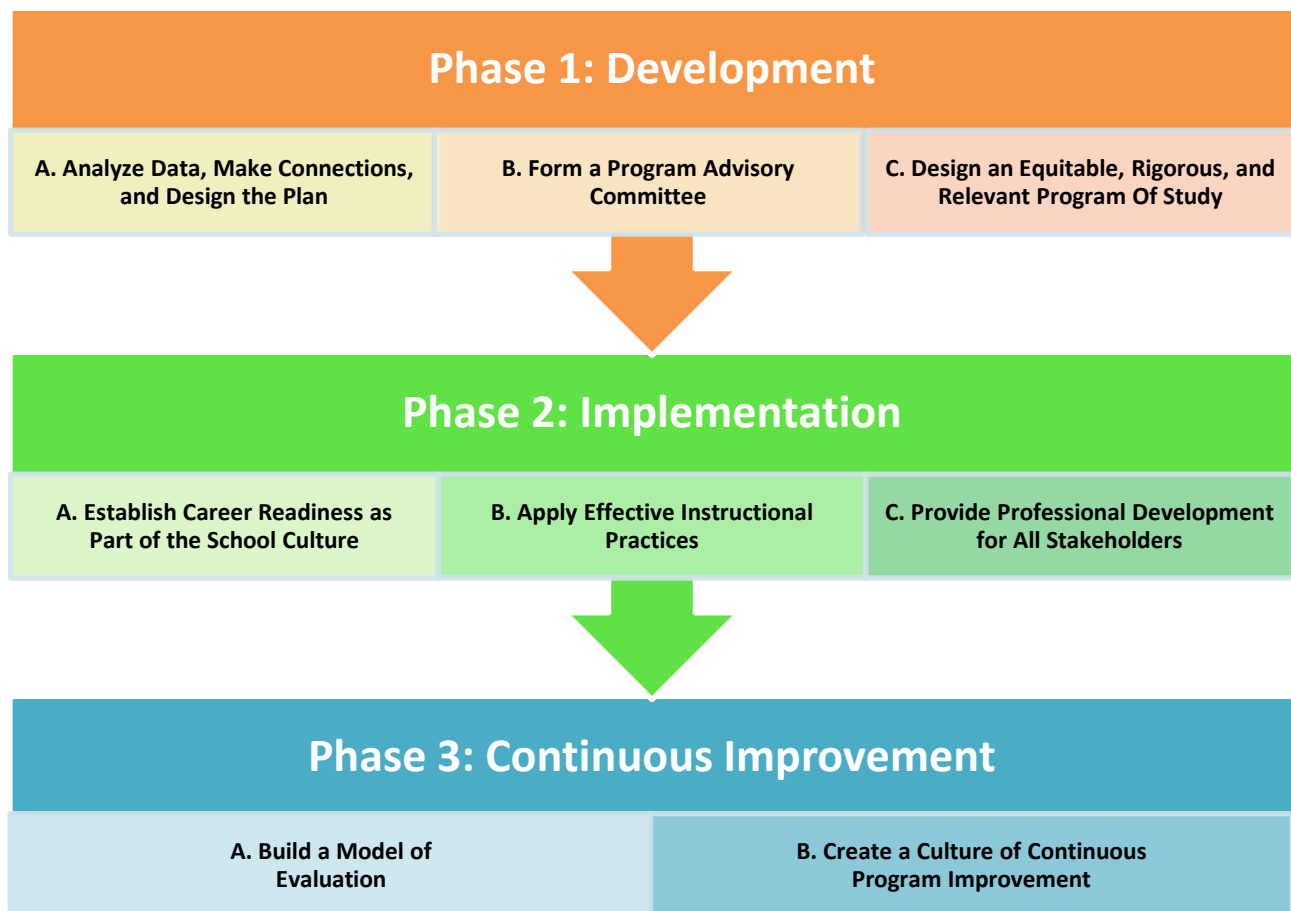*Two-year degree programs* are approved by the Board of Trustees at the Delaware Technical Community College. Documentation of all postsecondary course catalogues, staffing models, instructional facilities, promotional activities, student recruitment materials, and other institutional policy that may be required under related WIOA programs is documented as part of the local needs assessment and local application under the Act.

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Developing a Local Secondary or Postsecondary CTE Program of Study

This sections applies to LEAs that wish to design a CTE program of study that is unique to the local school system. The LEA will typically adopt or transition to a secondary state-model CTE program of study; however, a LEA may choose to develop a local CTE program of study for an occupation or occupational cluster where there is not already an existing state-model. Postsecondary institutions are not required to submit an application for program approval but are encouraged to adopt similar best practices when developing, implementing, and evaluating their programs. The DDOE CTE & STEM office will provide technical assistance to LEAs and postsecondary institutions to develop and implement the instructional model as needed. Program evaluation will be conducted within the five-year CTE program of study review cycle.

The process to develop a local CTE program of study is a collaborative practice that results in the submission of a *Delaware CTE Program of Study Application* for approval through the DDOE (see Appendix E). The three phases of program development apply to all state-model CTE programs of study and will be reflected as local CTE programs of study are developed. The steps for the development, implementation, and continuous improvement of both state-model and local CTE programs of study are depicted in the following chart and detailed in the following section. If the LEA would like technical assistance to begin the process or facilitate transition between phases, please contact the DDOE CTE & STEM policy advisor (see Appendix B).

Phase 1: Development

A. Analyze Data, Make Connections, and Design the Plan	B. Form a Program Advisory Committee	C. Design an Equitable, Rigorous, and Relevant Program Of Study

Phase 2: Implementation

A. Establish Career Readiness as Part of the School Culture	B. Apply Effective Instructional Practices	C. Provide Professional Development for All Stakeholders

Phase 3: Continuous Improvement

A. Build a Model of Evaluation	B. Create a Culture of Continuous Program Improvement

SECTION II – DEVELOPMENT, IMPLEMENTATION, AND CONTINUOUS IMPROVEMENT

PHASE 1: DEVELOPMENT

A successful CTE program of study begins with a vision and a succinct plan for implementation. The DDOE recommends using the *Delaware CTE Program of Study Application* as a template to document work. When the development phase is complete this work can be submitted for approval through the DDOE.

A. Establish a Foundation for Success: Analyze Data, Make Connections, and Design the Plan

A strong foundation is essential to effectively develop, implement, and continuously improve a CTE program of study. LEAs shall participate in the following action steps before proceeding in the development of a local program of study.

1. Collect, review, and analyze local, state, and regional labor market information:
    Career and Technical Education (CTE) programs of study are linked to early career and employment opportunities. Since the economic data system is dynamic, CTE programs of study require a continuous evaluation to effectively place students in gainful employment and postsecondary education. Therefore, labor market supply and demand factors must be analyzed to ensure that CTE programs of study are responsive to the changing workforce needs.

    Labor Market Information (LMI) refers to data regarding labor demand and supply, occupational growth, wage projections, regional employment statistics, and short-term employment trends based on job postings. An important component of LMI is the long-term (typically 10-year) employment projections for occupations and industries. Such data help educators make timely changes to their program offerings in order to match changes in regional employment demand and supply.

    Real-time LMI can also be used to information CTE program of study development, which typically consists of trends and analysis of online job postings throughout the region. Many real-time LMI reports use a web-scraping or spidering tool that accesses and aggregates online job posting data from job boards, newspapers, employer websites, and other online sources. Real-time LMI is valuable data for assisting in the identification of baseline trends, specialty and/or software skills, educational preferences, related experience, and industry certifications needed for hire. In addition, the data may help to identify or corroborate regional differences in hiring requirements as well as preferences and characteristics for a specified occupation or group of occupations. Real-time LMI is not an appropriate tool for determining actual current job-demand for specific occupations or geographies and should not be used as a primary data source for long-range strategic planning.

    To assist LEAs in gathering and analyzing LMI, the DDOE has created the *Labor Market Information (LMI) Instructions & Guidance* document and the *Labor Market Information (LMI) Review* document (see *Appendix A*). The *LMI Instructions & Guidance* document provides an overview of long-term LMI data, a process to collect and report data, as well as suggested background and methodology that can be applied to analyze LMI data. Additionally, the document provides instructions on how to complete the *Delaware CTE Program of Study Application* document which is required to be submitted as an attachment to each application for a state-model or local CTE program of study.

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It is highly recommended that LEAs complete and seek feedback on the *LMI Review* document before proceeding in the development of a local CTE program of study. Occupational demand and supporting LMI is prerequisite to CTE program of study approval. Additional resources for obtaining current LMI are available through the following links (see Appendix A):

- Delaware Department of Labor – 10-year occupation and industry projections at the state and county levels;

- Delaware 2028 Occupation and Industry Projections – provides a copy (print version) of the labor market projections including a section on occupations by Career Cluster; and

- Economic Development and Employer Planning System (EDEPS) – uses Bureau of Labor Statistics (BLS) data to provide national, state, and regional data by occupation, industry, and career cluster. The "Unit of Analysis" selection provides both demand and supply data (postsecondary completion) for most occupational areas.

2. <u>Create multiple links between secondary and postsecondary education and training programs:</u>
   As the LEA develops a local CTE program of study, support from employers, two- and four-year institutions of higher education, technical school district adult divisions, the registered apprenticeship system, as applicable, is essential. Programs of study provide multiple, equitable, routes to completion, bridge dual enrollment and dual credit opportunities across programs, and create intentional avenues for accelerated time to completion and credit for prior learning at the postsecondary level. A CTE program of study links coursework at the secondary and postsecondary levels so that students may attain a secondary school diploma or its equivalent and a stackable industry recognized credential, certificate, or license which holds value at the professional level, postsecondary level, in a registered apprenticeship program, and/or in an associate or baccalaureate degree program. Ideally, local CTE programs of study define a course sequence that progresses through the attainment of an associate or baccalaureate degree. The program should also document opportunities for students to transition between education levels and seek employment.

   It is highly recommended that LEAs engage with postsecondary partners to review and align education and training programs before proceeding in the development of a local CTE program of study. A local CTE program of study must include at least one established MOU or agreement with a postsecondary institution or registered apprentice program that depicts a learning progression beyond high school. The alignment of secondary and postsecondary coursework is prerequisite to CTE program of study approval.

3. <u>Draft an implementation plan and prepare to meet with the program advisory committee:</u>
   The draft implementation plan should include an outline of the CTE program of study course sequence (secondary and postsecondary), technical knowledge and skills, potential frameworks for curriculum and assessment development, a timeline for implementation, a plan for sustainability, and a model of evaluation. Additionally, the LEA should begin identifying the training needs for

instructional staff, school counselors, and school administrators as well as budgetary needs and potential funding sources. The LEA should also identify an instructional space. Throughout the planning process, the LEA should document how it plans to identify and engage the program advisory committee and what technical assistance is needed to implement the instructional model.

Prior to convening the program advisory committee, the LEA should craft a clear outline of the committee purpose, roles and responsibilities, as well as a meeting schedule and potential agenda items for each interaction. This work will inform how the program advisory committee is staffed and what stakeholder groups are represented. The program advisory committee should be engaged and supportive as the LEA progresses from a draft implementation plan to finalizing the *Delaware CTE Program of Study Application* and then submitting the application for approval through the DDOE.

The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in identifying and analyzing labor market data, identifying state and national resources for local CTE program of study development, and planning for program advisory committee engagement. If the LEA would like technical assistance please contact the CTE & STEM policy advisor (see Appendix B).

B. Form a Program Advisory Committee

Once a strong foundation has been established and the LEA requires external feedback, the LEA shall convene a program advisory committee. LEAs should participate in the following action steps to ensure that the program advisory committee helps to design, implement, and support the CTE program of study.

1. Staff the program advisory committee:
    Representatives on the program advisory committee should include, but are not limited to: CTE and academic teachers, CTE/curriculum district coordinators, school counselors, business and industry representatives, labor representatives, postsecondary partners (two- and four-year), parents, and students. The group should be reflective of the community and account for broad stakeholder engagement.

2. Acclimate the program advisory committee:
    The program advisory committee should be aware of the draft implementation plan and labor market analysis as well as policies and procedures within the LEA or partnering institution(s) of higher education which might accelerate or delay the implementation of the CTE program of study. This can include established practices that support or prohibit access to early postsecondary credits (e.g., articulation, dual enrollment, advanced standing, advanced placement) and early career (i.e., work-based learning, internships, cooperative education, apprenticeship) opportunities for students. These efforts should be considered in the early stages of development to assure that every student can seamlessly transition to high skill, high wage, in-demand employment and postsecondary placement. Potential barriers can be overcome by ensuring that secondary, postsecondary, and industry partners work together to

design and implement the proposed program of study.

3. <u>Evaluate the role of the program advisory committee:</u>
The role of the program advisory committee and their work will change as the LEA moves through the development, implementation, and continuous improvement phases. The LEA should develop a charge that is specific to the immediate needs of the LEA. The charge should be revisited annually or more frequently based on the continued needs of the LEA, the school, the teacher(s), or the students. As the program of study evolves, the program advisory committee should build observable and measurable outcomes, celebrate success, and continue to create early college and early career opportunities for every student.

C. Design an Equitable, Rigorous, and Relevant Program of Study

Delaware CTE programs of study integrate academic and career & technical education so that every student is prepared for career success and postsecondary education. CTE programs of study must include a sequence of academic and technical coursework that bridges secondary and postsecondary education as well as opportunities to obtain stackable industry recognized credentials and postsecondary credit resulting in shortened time to degree. Additionally, CTE programs of study provide opportunities for students to participate in career counseling, work-based learning experiences, registered youth and pre-apprenticeship programs, service learning, and other leadership development activities including Career and Technical Student Organizations (CTSOs) that extend beyond the school day or instructional program. LEAs shall participate in the following action steps when developing a CTE program of study.

1. <u>Review the Career Clusters Framework® to identify the appropriate Career Cluster and Pathway:</u>
The LEA and program advisory committee members should be knowledgeable of the *Career Clusters Framework®* and organizational structure for classifying CTE programs of study. Career clusters provide an occupational framework to offer industry-focused, student-centered, and performance-driven learning. Students should be exposed to a broad set of skills that are transferable within the industry sector or Career Cluster, while also acquiring more specific workplace skills and knowledge through the identified Career Pathway. Further, by identifying the appropriate Career Cluster and Career Pathway, the LEA is defining how the program of study and course level data will be collected and reported, how the instructional model fits within the statewide system of career preparation, and the related LMI that will be used to inform program development and improvement.

   For more information on knowledge and skill statements specific to each Career Cluster, please visit: Advance CTE website (see Appendix A). For a list of LEA approved courses, please visit the CTE Portal and click on the School CIP tab. The identification of the Career Cluster and Pathway as well as the program of study title must be provided within the *Delaware CTE Program of Study Application*.

2. <u>Develop a plan for the instructional space:</u>
The size, shape, and arrangement of a facility, as well as location of passageways, storage, and work areas are important factors in establishing a safe working environment. To assure safety and

quality education, the number of students that can be safely placed in a CTE program of study will vary based on the program requirements and activities. Student enrollment and the number of students to be placed in the instructional space should be discussed in the planning phase. A draft of the facilities design (that includes areas needed for classwork, skill development with required equipment, and use of technology) should be developed to assure proper program operation, equal access, and safety for every student. All CTE programs must adhere to the guidelines set forth in Delaware's *Safety First: Safe Instructional Practices in the Classroom and Laboratory* (see Appendix A)*.*

3. Identify academic and technical skill standards:
    The program advisory committee must review the academic, technical, and workplace skills and knowledge required for entry into a related postsecondary program and career field. It is critical that secondary and postsecondary educators work with business stakeholders to clarify the knowledge and skill proficiencies that every student will master in the CTE program of study. Additionally, the committee will review the technical skill standards most closely aligned with the CTE program of study to ensure relevance and accuracy. These standards will serve as the foundation for curriculum and assessment development and the identification of appropriate instructional strategies. The identification of academic and technical standards and how those standards were applied to the development of the program of study must be provided within the *Delaware CTE Program of Study Application.*

4. Identify early postsecondary and career opportunities as program quality measures:
    Approved CTE programs of study provide every student with the opportunity to participate in early career opportunities and earn postsecondary credit while still in high school. Options for students to participate in early career opportunities must be outlined within the *Delaware CTE Program of Study Application*. These experiences may include, but are not limited to, supervised work-based learning activities such as experiential education, job shadowing, internships, pre-apprenticeship, youth and registered apprenticeship, cooperative education, and/or industry-mentored projects. Each activity should be designed to enrich and advance school-based instruction and provide students with the opportunity to demonstrate career readiness. Delaware's CTE Work-Based Learning Policies and Procedures provides additional guidance for the implementation of high quality work-based learning (WBL) opportunities.

    Options for students to participate in early postsecondary credit including advanced placement, dual enrollment, transcripted and/or articulated credit, and registered youth and pre-apprenticeship, must be outlined as a program quality measure within the *Delaware CTE Program of Study Application*. In developing CTE program of study course sequences, secondary and postsecondary educators should also identify opportunities for students to pursue two- and four-year degrees and certification programs through the development of articulation and/or dual enrollment agreements. All established agreements should be attached to the *Delaware CTE Program of Study Application.*

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Recognized postsecondary credential are program quality measures of technical knowledge and skill proficiency developed during the CTE program of study that leads to a stackable industry recognized credential, certificate, or license which holds value at the professional level, postsecondary level, in a registered apprenticeship program, or in an associate or baccalaureate degree program. Where available and appropriate, CTE programs of study shall offer students the opportunity to earn an industry-recognized certification or license to demonstrate career readiness and provide students with a credential to seek competitive employment. The process for LEAs seeking approval for a credential to be included as part of the approved recognized credential list is outlined in Appendix D. Both industry certification or licensure and early postsecondary credit are considered as program quality measures at the secondary level. These program quality measures must be identified within the *Delaware CTE Program of Study Application*.

5. <u>Develop program and course descriptions as well as end-of-program and course assessments:</u>
   In partnership with the program advisory committee the LEA will develop a program of study overview that broadly describes the programmatic expectations. The overview should describe any prerequisite requirements as well as knowledge and skills students will acquire in the program of study. The overview will serve as a marketing tool for students, parents, and the community.

   The program advisory committee should also help to identify the most appropriate end-of-program assessment(s) to document student achievement. This may include an industry recognized licensure or certification exam. In addition, the LEA will develop course descriptions and consult with the program advisory committee to identify appropriate end-of-course assessments which will serve as benchmarks for student learning. These benchmarks or culminating experiences help to document student attainment of knowledge and skills identified for each course. Additional assessments may include projects, written and performance-based exams, or assessments leading to an industry recognized credential or licensure. Additionally, both parties should identify opportunities within the CTE program of study to provide students with industry-mentored experiences and assignments. The program and course descriptions and the assessment outline must be provided within the *Delaware CTE Program of Study Application*.

6. <u>Develop curriculum that includes both technical and academic content:</u>
   Secondary and postsecondary academic and CTE teachers will develop the curriculum and course sequences for the purpose of both vertical and horizontal curriculum alignment. Vertical alignment builds upon pre-existing knowledge from one grade level to the next, transitioning from middle school to high school, to postsecondary education, and the workforce. This alignment should include determining where each specific knowledge and skill will be incorporated in the individual course sequence.

   Horizontal alignment refers to teaching certain knowledge and skills at the same grade level of related content in other subject areas. This includes content from academic as well as CTE coursework. Curriculum can be adopted, adapted, or developed in accordance with guidance from

the program advisory committee. Curriculum should be based on the most relevant academic (Common Core State Standards and Next Generation Science Standards), technical, and employability standards available and should encourage innovative teaching and learning methods that includes the use of technology, inquiry and problem-based approaches, higher-order thinking skills, and competency-based learning. The method of curriculum development must be defined within the *Delaware CTE Program of Study Application*.

7. Identify value-added opportunities for students:
   All CTE programs of study provide every student with the opportunity to participate in early career opportunities and earn postsecondary credit while enrolled in high school. As a result, students demonstrate technical skill attainment by acquiring an industry recognized certification (including a state license or certification) and early postsecondary credit that can be applied to the completion of a program of study via a postsecondary degree, certificate, or apprenticeship program. While this baseline expectation is consistent across all CTE programs of study, the opportunity to extend and accelerate learning must be established. This includes building opportunities for high school students to engage employers and continue their education beyond the CTE program.

   These opportunities will typically take place during the student's senior year and will reflect postsecondary goals in the form of related dual enrollment and advanced coursework as well as career aspirations in the form of cooperative learning experiences and structured internships. Students should be encouraged to participate in these opportunities through the student success plan (SSP) and measures to track student participation and success should be developed and used to inform program improvement. While not all CTE students will take advantage of these opportunities, transition services and options to extend early postsecondary and early career experiences should be planned for and documented in the *Delaware CTE Program of Study Application*.

   High-quality value-add experiences must be available for every CTE student. Options may include, but are not limited to:
   - Conducting dual enrollment courses in-school, virtually, in a hybrid format, or outside of normal school hours;
   - Offering dual enrollment courses and advanced placement courses that meet requirements for one or multiple CTE programs of study;
   - Enrolling students in aligned workforce and degree bearing courses at higher education institutions during the student's senior year;
   - Enrolling students in aligned postsecondary coursework at technical/vocational institutions during their senior year;
   - Partnering with community-based organizations and non-profits to deliver coursework that results in an industry valued certification; and/or
   - Opportunities for students to participate in registered youth apprenticeship programs as well as other career immersive work-based learning experiences during their senior year.

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8. Identify POS teacher certification requirements:
    CTE program of study educators must hold both a Delaware teaching license and at least one certificate. The license [14 DE Admin. Code 1510] authorizes an educator to work in a LEA. The certificate identifies the area for which the educator is authorized to practice [14 DE Admin. Code 1505]. CTE certificates are issued in the areas of agriscience [14 DE Admin. Code 1550], business education [14 DE Admin. Code 1551], family and consumer sciences [14 DE Admin. Code 1554], marketing education [14 DE Admin. Code 1555], and technology education [14 DE Admin. Code 1557]. In addition, a skilled and technical sciences certificate may be issued in a specific career area for a CTE teacher candidate with related work experience [14 DE Admin. Code 1559] (e.g., Skilled and Technical Sciences (STS) in Therapeutic Services (Allied Health), Skilled and Technical Sciences (STS) Construction (Electrician), Skilled and Technical Sciences (STS) Programming and Software Development). The DDOE's Delaware Educator Data System (DEEDS) portal provides information regarding all CTE teacher licensure and certification requirements (see Appendix A).

    Certification requirements specific to approved programs of study are available through the DDOE *CTE Teacher Certification Requirements* document which can be obtained from the CTE Portal under the Resources tab. The document includes related work experience as defined through the US Bureau of Labor Statistics (BLS) (see Appendix A) and professional licensure or certification requirements. Appropriate certification options, work experience, and credentials must be defined within the *Delaware CTE Program of Study Application*.

9. Identify related Career and Technical Student Organizations:
    Co-curricular Career and Technical Student Organizations (CTSOs) provide students with opportunities to participate in career development experiences, demonstrate and further refine their technical skills, and exhibit leadership. CTSOs are co-curricular and available to all students to provide additional skill and leadership development by participating in local, state, and national events and opportunities. CTSOs support and enhance the POS curriculum and provide critically important leadership in bringing expertise from specific career areas to education programs through close ties with businesses and local communities. CTSOs are vital in meeting the Perkins requirements and high standards of achievement.

    The program advisory committee is a valuable resource for supporting student organization activities through participation at both the local and state levels. Students enrolled in CTE programs of study are encouraged to participate in CTSOs and other professional associations or organizations that relate to the program of study. Measures to track student participation and success should be developed and used to inform program improvement. The identification of a CTSO that supports the program must be defined within the *Delaware CTE Program of Study Application*.

10. Complete the program of study matrix:
    The *Program of Study Matrix* (see Appendix A) defines a planned, sequential program that aligns academic and technical coursework with the CTE program of study including a capstone or culminating experience such as an industry-mentored project and/or work-based learning

experience. The matrix also helps to demonstrate the connection between secondary and postsecondary education and how students will progress within the program of study (spanning secondary and postsecondary). The appropriate CTSO affiliation, industry certification and licensure options, as well as opportunities for early postsecondary credit should also be identified. A list of potential career options and related postsecondary education requirements shall be provided to help students determine their path to continuing education and career success. The completed *Program of Study Matrix* should be attached to the *Delaware CTE Program of Study Application*.

11. Develop an accelerated time to workforce/degree communication plan for parents, students, and employers:
    Clearly communicating with parents, students, and employers where opportunities for accelerated time to workforce/degree supports student motivation. This practice also aligns to expectations for student success planning and can increase student engagement, motivation, and success as part of a multi-tiered system of support. Information regarding articulation agreements, opportunities to complete early postsecondary coursework (technical and academic), and the registered youth and pre-apprenticeship options available should be provided in eighth grade and continue through graduation as part of both the CTE program of study and the postsecondary advisement planning processes. Equipping students, parents, and employers with information provides an opportunity to support students in establishing, pursuing, and achieving their postsecondary goals with minimal debt.

12. Design an evaluation plan that promotes continuous program improvement:
    The program advisory committee and LEA will partner to design and administer an evaluation plan to continuously improve the CTE program of study. This includes collecting relevant data which is essential to the success of the CTE program of study. Data should be disaggregated and analyzed at the school and program level to inform programmatic decisions. Data from secondary, postsecondary, and employer stakeholders should be included in the overall evaluation plan. All state-model and local CTE programs of study will be monitored on a three or five-year cycle to ensure continuous program improvement. Local CTE programs of study undergo a review cycle on a five year basis (see Appendix G).

Once the planning phase is complete and the related information is included in the *Delaware CTE Program of Study Application*, the document will be submitted to the DDOE for approval. The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in developing local CTE programs of study. If the LEA would like technical assistance please contact the CTE & STEM policy advisor (see Appendix B).

PHASE 2: IMPLEMENTATION

The culture of the LEA, the school building, and the community should be reflected in the CTE program of study. Instruction should be interactive and highly engaging as well as promote the opportunity for students to apply knowledge, develop career ready practices, and engage in work that is authentic. Further, CTE programs of study are designed to serve every student and help every child seek early

postsecondary and early career experiences. Professional development should be provided to each teacher that is specific to the program content and related pedagogy. Additionally, professional development should be provided for school counselors and school administrators to better understand CTE programs of study and the related instructional model.

A. Establish Career Readiness as Part of the School Culture

Once a program of study is designed, vetted by all stakeholders, and approved by the DDOE, the LEA should work to align the program to existing school policy/practice and identifying potential students. In order for a CTE program of study to be successful, high expectations need to be placed on the school-based staff to provide academic, technical, and workplace skills to every student regardless of gender, race, national origin, or socio-economic status. In addition, there needs to be a model of support for academic and career counseling. This work should be a reflection of the students' career aspirations and should be supported by both the instructional staff and school counseling office. School administrators will need to work with both the instructional staff and school counseling office to ensure that course scheduling matrices do not eliminate potential student enrollment and also ensure that students can move through the CTE program at an accelerated pace. Additional support must also be provided by the community and program advisory committee.

CTE programs of study are designed for students of all genders and backgrounds and are a critical component of college and career readiness. Aligning this expectation to the school culture is essential for program success. Teachers are encouraged to work with school counselors and administrators to review program of study and course level data to ensure that every student has equitable access to every program of study, as well as early postsecondary and early career experiences. The Perkins V Core Indicators of Performance can help to serve as a baseline for program excellence. Supporting data collected at the LEA or school level may also be analyzed to inform instruction and programmatic decisions. This work should be tied to the program evaluation model and building a culture of continuous program improvement (see Phase 3: Continuous Improvement).

School staff should work together to provide career and academic counseling that reflects the needs of all children. CTE programs of study should be an integral part of each child's student success plan (SSP); a requirement for Delaware students grades 8-12 [14 DE Admin. Code 507] (see Appendix A). The SSP reflects the academic and career interests of students and defines an educational path for academic and technical courses, early postsecondary credit, work-based learning experiences, and extracurricular opportunities needed to prepare students for entry into postsecondary education and the workforce. The SSP integrates the program of study into the school culture and represents a fluid, yet sequential plan based on a unique set of interests, needs, education and career goals, as well as graduation requirements for each student. Work-based learning experiences are an integral part of the program of study and should be reflected through the SSP process. Further, the plan goes beyond the school experience by connecting students with the larger community and is guided by an advisement process that includes school counselors and school staff, parents or guardians/caregivers, and career coaches. As appropriate, program advisory committee members can participate in the SSP process to help identify related work-based learning opportunities and provide career coaching.

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By establishing rigorous and relevant CTE programs of study, LEAs are providing every student with the opportunity to succeed.   When academic, technical, and workplace skills are developed in an authentic learning environment, students experience learning in a highly interactive and authentic environment. Access to high quality CTE programs of study must be assured for every student through an educational system that aligns programs, curricula, and instructional services across disciplines. CTE programs of study are an integral part of every student's success plan (SSP) and ensure that they graduate from high school prepared for postsecondary education and employment in high skill, high wage, in-demand occupations. Postsecondary institutions should continue to ensure proper program placement, matriculation, and post-program placement utilizing a career advisement system.

B. Apply Effective Instructional Practices

The teacher is the single most important factor in student achievement.   For teachers to be effective they must continually expand their knowledge and skills to implement educational best practices that exemplify both rigor and relevance. Rigor is inserted into the curriculum by creating opportunities for students to apply content and problem-solving skills through integration and active learning. Relevance reflects opportunities for communication and teamwork as well as project-based instruction that focus on real-world issues.

Instruction should be specific to the grade level and provide the foundation for student achievement. Aligning CTE curriculum to the Common Core State Standards and Next Generation Science Standards will engage and prompt students to transfer and connect ideas and concepts across disciplines. Further, effective instructional practices include differentiating instruction to meet the needs of every student and provide active learning opportunities for students to internalize career-ready practices and develop skill specific tasks. Opportunities for students to participate in work-based learning should be developed and included throughout the program of study. This includes students engaging in career awareness, exploration, and immersion activities that match their career aspirations and are reflective of the desired occupation. The integration of instruction and support from the program advisory committee or area employers is essential to delivering meaningful work-based learning experiences. Additionally, opportunities for students to seek paid career-related experience during the summer months or the school year are essential to better connect knowledge and skill development with application and experience. Please refer to Delaware's CTE Work-Based Learning Policies and Procedures guidance for additional information regarding the implementation of high quality work-based learning (WBL) opportunities.

Career and Technical Student Organizations (CTSOs) play an important part in preparing students to become productive citizens and to assume roles of leadership in their communities. These organizations provide a unique program that connects career training and leadership development within a framework that inspires and recognizes student achievement. CTSOs connect curricular and co-curricular experiences and promote a growth mindset.   Students who possess a growth mindset show greater motivation in school, receive better grades, and are more likely to succeed. When effective instructional practices are coupled with a growth mindset, students become enthusiastic and persistent learners who take charge of their own success. When both students and educators

have a growth mindset, they understand that intelligence can be developed.

C. Provide Professional Development to All Stakeholders

In order to be effective, teachers need to be engaged in high quality and on-going professional learning. Professional learning for educators must include opportunities to work with business and industry partners as well as postsecondary partners to expand and reinforce content and pedagogy. Professional learning for school administrators and school counselors should also be developed to reflect the needs of the CTE program of study and the program advisory committee.

Learning Forward, formerly known as the National Staff Development Council has adopted Standards for Professional Learning that connect professional learning to student achievement. The standards acknowledge that all educators have a professional responsibility to learn and grow to better assist students. The Standards for Professional Learning have been adopted as Delaware's Professional Development Standards, [14 DE Admin. Code 1598] (see Appendix A) and serve as the foundation for professional development for all Delaware educators as well as indicators that guide the facilitation, implementation, and evaluation of professional learning. The standards make explicit that the purpose of professional learning for educators is to develop the knowledge, skills, practices, and dispositions they need to help students perform at higher levels. These standards should be taken into consideration when building and evaluating professional learning opportunities for CTE programs.

A direct relationship exists between professional learning and student achievement.   When professional learning is standards-based, it has a greater potential to change what educators know, are able to do, and believe. When educators' knowledge, skills, and dispositions change, they have a broader collection of effective strategies to use and apply to meet performance expectations and student learning needs. When educator practice improves, students have a greater likelihood of achieving results.

Statewide professional development opportunities are essential for all Delaware CTE educators to further develop the knowledge, skills, and instructional practices needed to improve student performance. The DDOE is committed to growing the professional capacity of CTE teachers, school counselors, and LEA administrators by investing in and providing resources for high quality, equitable program and course specific professional learning as well as targeted training for school administrators and counselors. Professional learning opportunities for teachers are available for all state-model CTE programs of study and reflect course and program level instructional strategies and techniques. Support for school administrators is available through the CTE Cadre which meets three to four times annually to collaboratively develop public policy and support career readiness. School administrators who are new to CTE are invited to attend training specific to the administration of Perkins V and CTE and may complete a variety of online support tools specific to program administration and funding. School counselors and building administrators are invited to attend the annual college and career readiness conference sponsored by the DDOE and may request customized technical assistance from the DDOE staff defined below.

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The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in working to establish career readiness as part of a school culture, supporting teachers and administrators, as well as helping to build professional learning models. If the LEA would like technical assistance please contact the CTE & STEM policy advisor (see Appendix B).

PHASE 3: CONTINUOUS IMPROVEMENT

An effective CTE program of study is centered on a model of evaluation that creates opportunities for all stakeholders to engage in the process of continuous program improvement. Program evaluation should be conducted on a semi-annual or annual basis and focus on defined metrics with established targets throughout the five-year program improvement cycle.

A. Build a Model of Evaluation

The program advisory committee should be involved in the design of a program evaluation and accountability plan. This plan should be designed with the end-in-mind and focus on the elements that accelerate student achievement within the program of study model. Further, this plan should be student-centered and focus on creating efficient practices that lead students to high skill, high wage, in-demand career opportunities through early postsecondary and early career experiences.

The model of evaluation should define the required data elements for program improvement, a timeline for each evaluation activity, the individuals responsible for collecting/analyzing the data, checkpoints where the program of study team will review and reflect on the data, and feedback loops that promote continuous program improvement. LEA staff are encouraged to move beyond values required for base compliance and to identify measures that reflect additional student need. The following elements are reflective of the DDOE's priorities for CTE and should be included in the LEA plan for the evaluation of CTE programs of study:

1. Career pathways at the LEA level include Delaware CTE programs of study and program quality is ensured by an active program advisory committee;
2. CTE programs of study add value for students (technical skill attainment) and ensure students are able to transition into postsecondary education and a career;
3. Every student has access to Delaware CTE programs of study as well as career and support services that facilitate a successful transition between the learning years (middle to high school and to postsecondary education);
4. Collaboration occurs amongst school faculty (school counselors, academic teachers, CTE teachers, and school administrators) to support a college and career ready culture and there are established professional learning experiences;
5. CTE program of study improvement is informed by student achievement, accurate data collection, and comprehensive data analysis (LEA, school, and program of study); and
6. Effective grant and fiscal management.

B. Create a Culture of Continuous Program Improvement

The DDOE is committed to building a model of shared accountability and success by supporting state-

model and local CTE programs of study. Program innovation will be incentivized through state and federal funding streams and a commitment from the DDOE to provide timely technical assistance and quality professional learning opportunities.

Five-year plans for program of study implementation, evaluation, and continuous improvement should be developed and monitored by the DDOE, LEAs, and their program advisory committee. Evaluation and accountability data should be shared with all stakeholders. Further, data should be analyzed to determine what changes or improvements are needed in the design and implementation of the CTE program of study. Data should also be used to inform next steps related to program improvement and professional development opportunities. A cycle of continuous improvement should be established by the program advisory committee that reflects the changing nature of work in the specific industry, as well as the needs of the LEA, school, educator(s), students, community, and program advisory committee. The LEA should be aggressive in defining program metrics and performance targets as well as when those targets will be measured throughout the five-year plan.

Program Review Cycle and Five-Year Plans
State and local CTE model programs of study (POS) are reviewed and revised with input from internal and external stakeholders every five (5) years, or sooner as indicated by shifts in industry standards or labor market needs. This program iteration process promotes equitable outcomes for every student including high school graduation, continuing education, and competitive employment in high skill, high wage, in-demand careers. As a result, state or local POS level data and the LEA Local Needs Assessment, as applicable, are used to create a Five-Year Program of Study Plan (POS Plan) (see Appendix H), required to support continuous program improvement and success outcomes for all learners.

The depth of review, update, and revision for each POS may vary. For example, a POS may require minor revisions (e.g., update knowledge and skill statements to better align to an industry recognized certification) or more intensive reformation (e.g., a significant change in labor market demand). Guiding questions to consider in planning to review, revise, or transition a state or local program of study include:

- Is the POS reflective of forecasts for actual employer need and demand?
- Is the POS meeting the current needs of registered apprenticeship and postsecondary programs?
- Are there new opportunities to articulate with apprenticeship and postsecondary partners?
- How well do POS participants persist to become POS completers?
- Do enrollment, achievement, and graduation data reflect the population of the community served with equity?
- What Multi-Tiered Level of Supports (MTSS) are in place to help students obtain industry credentials, participate in work-based learning experiences, and/or earn accelerated postsecondary credit?

The Delaware Department of Education and local education agencies should consider the action steps outlined in Appendices G and H when revising state or local CTE programs of study. Once the five-year

review is complete, the amended program of study will be submitted through the CTE Portal for approval. The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in developing a plan to review the local CTE programs of study and developing the five-year plan. If the LEA would like technical assistance, please contact the CTE & STEM policy advisor (see Appendix B).

Supporting Readiness through Multi-Tiered Level of Supports (MTSS)
Tier one support for CTE students to demonstrate proficiency on state academic assessments first occurs at the school building level. Support is provided to teachers through local education agencies for academic instructional programs. Further, the CTE workgroup requires that CTE programs of study exist in complement to a rigorous academic course sequence, which is defined in the program of study matrix. Support and professional learning are provided through various workgroups in the Department of Education to facilitate academic programs. Support is also provided through the CTE workgroup to district staff and building administrators through content-specific professional development, the CTE Cadre, annual conferences, and other events and working groups.

Tier two and three supports are provided to increase student readiness in academic subject areas. The Readiness with a Purpose program offers tiered support to students in English language arts and is signaled on students' transcripts to place students into credit bearing coursework upon admission. The CTE workgroup partners with local education agencies and schools to offer the Readiness with a Purpose program as part of a comprehensive local system of CTE. As such, the Foundations of College English course, as part of the Readiness with a Purpose program, is approved as a specialized CTE course to create federal and state fiscal support and staffing models for local education agencies administering the program. A Local Education Agency (LEA) seeking approval for the Foundations of College English course may do so via the CTE Portal in the EdAccess platform.

The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in building a model of evaluation and engaging in continuous program improvement. If the LEA would like technical assistance please contact the CTE & STEM policy advisor (see Appendix B).

CTE Policy and Procedures Summary
The Delaware Department of Education is committed to ensuring that every Delaware student, regardless of race, ethnicity, gender, socio-economic status, abilities, or diverse-abilities, is college and career ready and has equitable access, supports, and opportunities to continue their education and enter the workforce. Career and Technical Education helps our state to align economic development initiatives with student achievement and career advancement. CTE is developing Delaware's most valuable resource—its people, helping them gain the skills, technical knowledge, academic foundation, and work experience required for employment in high skill, high wage, in-demand occupations. CTE is leading change, transforming expectations, and making a difference for students, our educational system, and our employers.

SECTION III – PROGRAM OF STUDY APPLICATION PROCEDURES

Completing and Amending a Delaware CTE Program of Study Application

A Local Education Agency (LEA) seeking approval for a Career and Technical Education (CTE) program of study will submit a *Delaware CTE Program of Study Application* (see Appendix E via the CTE Portal in the EdAccess platform for the following:

1. Adoption of a Delaware state-model CTE program of study; or
2. Development of a local CTE program of study.

A LEA seeking approval to amend a previously approved CTE program of study based on the five-year review process or other identified needs will submit add an Amendment to the existing application via the CTE Portal through the EdAccess platform. A LEA seeking approval for CTE middle school courses articulated with a CTE high school program of study will submit a *Delaware CTE Middle School Application* (see Appendix F) via the CTE Portal. For more information on submitting a program of study application or amendment via the CTE Portal, refer to the *CTE Portal Instructions Manual* found under the Resources tab. To gain access to the CTE Portal, contact LEA technical support staff.

The Delaware Department of Education, CTE & STEM office will provide leadership and technical assistance to LEA representatives to develop and amend CTE program of study applications and amendments. The following procedures should be followed for submission:

1. Initial contact and technical assistance:
   The LEA leader(s) will contact the DDOE CTE policy advisor (see Appendix B) to begin the CTE program of study development process. The CTE policy advisor will work with a subject matter expert to provide technical assistance to the LEA as needed.

2a. Adoption of a Delaware state-model CTE program of study:
   Copies of all applications for a Delaware state-model CTE program of study (see Appendix A) are available through the DDOE website and via the CTE Portal. Each application is consistent with the required components of a local CTE program of study and must be implemented without modification. The LEA will submit the state-model CTE program of study application with the appropriate signatures and complete the following sections of the proposal:

   - Labor Market Information (LMI) Review:
     Review, update (if needed), and upload the *Labor Market Information (LMI) Review* for the specific program of study. The LEA should use this information to engage their program advisory committee and as background information to better understand employment and the prospective job market. For more information, see Section II: *Collect, review, and analyze local, state, and regional labor market information.*

SECTION III - PROGRAM OF STUDY APPLICATION PROCEDURES

- Program Advisory Committee Members:
  List all CTE program advisory committee members which should include, but is not limited to: business and industry representatives, labor representatives, postsecondary partners, CTE and academic teachers, CTE/curriculum district coordinators, and school counselors. For more information, see Section II: *Form a program advisory committee*.

- Early College Opportunities:
  Review, update (if needed), and attach copies of all *Memorandum of Understanding* that serve as *articulation/dual enrollment agreements* for the specific program of study. Options for early college credit can include advanced placement, dual enrollment, transcripted and/or articulated credit, and pre-apprenticeship. For more information, see Section II: *Identify early college.*

- Value-added Opportunities:
  Describe extended early career and early postsecondary opportunities available during the senior year. Advanced coursework, transition/support services, cooperative learning experiences, and additional dual enrollment options should be documented. For more information, see Section II: *Identify value-added opportunities for students.*

- Program of Study Matrix:
  Update and upload the *Program of Study Matrix* to demonstrate the school's alignment of academic and technical courses that culminate in an early career and/or early college experience. Identify appropriate certification and licensure options, opportunities for obtaining early postsecondary credit (courses with articulated or dual enrollment credit agreements should be appropriately designated within the matrix), the postsecondary program sequence, and potential career options. For more information, see Section II: *Complete the program of study matrix*.

- Assurances and Signatures: Download, route, and upload the assurances document to obtain the required signatures.

2b. Development of a local CTE program of study:
  The *Delaware CTE Program of Study Application* for local CTE programs of study (see Appendix E) reflects the requirements for CTE program of study approval which is described in detail in Section II, *Career & Technical Education Program of Study Approval and Evaluation Overview*. The local application for a CTE program of study shall include the necessary detail to effectively evaluate the program of study. Incomplete applications or applications that do not adequately reflect the expectations for all CTE programs of study will not be approved.

2c. Amending a CTE program of study:
  Amendments to previously approved CTE state-model and local programs of study should be reflective of the five-year program review findings (as applicable) or other short-term programmatic needs. Amendments should be submitted via the CTE Portal through EdAccess. To submit an amendment request, go to "My Application", select previously submitted POS application to amend by clicking the amend button to the right. Revise the application, describe the amendment(s) that

were completed on the supporting documents page, and submit the application for review.

For more information on submitting a program of study application or amendment via the CTE Portal, refer to the *CTE Portal Instructions Manual* found under the Resources tab. Updates must be specific to the program of study and be reflective of the five-year program review findings (see Appendix G).

LEAs seeking to add a recognized postsecondary credential that is not on the state approved list should download the Recognized Postsecondary Credential (Perkins Indicator 5S1) request for approval form from the "Supporting Documents" page in the POS application on the CTE Portal, complete the form, and upload the form on the "Supporting Documents" page (see Appendix D).

2d. Development of a middle school CTE course:
The *Delaware CTE Middle School Application* (see Appendix F) includes related academic and technical skill standards, the course description, the end-of-course assessment(s), course curriculum, and the related CTSO as described in detail in Section II, *Career & Technical Education Program of Study Approval and Evaluation Overview,* Phase II. In addition, the application must detail how the middle school course is aligned with one or more approved CTE programs of study at the high school level, as well as how the school culture promotes career exploration and opportunities to learn and apply both academic and technical skills. The local application for a CTE middle school course shall include the necessary detail to effectively evaluate the course and articulated program of study. Incomplete applications or applications that do not adequately reflect the expectations for all CTE middle school courses will not be approved.

3. Submitting the program of study proposal:
The completed *Delaware CTE Program of Study Application*, *Delaware CTE Middle School Application*, or *Delaware CTE Program of Study Amendment Request* must be submitted via the CTE Portal through EdAccess with the required documentation and appropriate signatures by November 30 of the school year prior to program implementation. For more information on submitting a program of study application or amendment via the CTE Portal, refer to the *CTE Portal Instructions Manual* found under the Resources tab. To gain access to the CTE Portal, contact LEA technical support staff.

Submitting a CTE Program of Study Application for Multiple Middle or High Schools
This section applies to LEAs with multiple middle or high schools. A single application, respectively, may be submitted by the LEA to implement a CTE program of study at multiple middle or high schools. If the LEA chooses to submit a program of study application for multiple schools, each school site should be selected when adding a new application in the CTE Portal. This includes identifying middle school alignment with high school programs or early career and early postsecondary opportunities specific to each high school.

Receiving Notification of Approval for a CTE Program of Study
Proposals will be evaluated through the CTE program of study approval process and LEAs will be notified of the approval status by January of the school year prior to program implementation. As applicable,

SECTION III - PROGRAM OF STUDY APPLICATION PROCEDURES

revisions must be completed by February 1 of the school year prior to program implementation. If revisions are required, LEAs will be notified of final approval status by February 28 of the school year prior to program implementation.

Checklist for CTE Program of Study Approval

The following checklist can be used as a process tool for LEAs to develop and submit the *Delaware CTE Program of Study Application* for state-model or local CTE programs of study.

Components of the CTE Program of Study Application:

- ☐ List program advisory committee members;
- ☐ Certify that a labor market needs analysis has been completed and upload;
- ☐ List the academic, technical, and workplace standards used to develop the program of study;
- ☐ Identify early career opportunities for the program of study;
- ☐ Identify early college opportunities for the program of study;
- ☐ Identify industry-recognized certifications and/or licenses and program quality measures for the program of study;
- ☐ Develop the program of study overview, identify end-of-program assessment(s), and complete all course level details;
- ☐ List value added opportunities (extended early postsecondary and career credit opportunities) available during the senior year;
- ☐ List teacher certification requirements;
- ☐ Indicate the Career and Technical Student Organization (CTSO);
- ☐ Complete and upload the Program of Study Matrix; and
- ☐ Complete and upload the Assurances and Signatures:

Supporting Documentation to the CTE Program of Study Application:

- ☐ Upload the *Labor Market Information (LMI) Review* document;
- ☐ Upload all *Memorandum of Understanding* for articulation/dual enrollment as applicable;
- ☐ Upload the *Program of Study Matrix*;
- ☐ Upload the *Delaware CTE Secondary Recognized Credential Request* (optional)*; and
- ☐ Upload the Assurances and Signatures.

Checklist for CTE Middle School Approval

The following checklist can be used as a process tool for LEAs to develop and submit the *Delaware CTE Middle School Application*.

Components of the CTE Middle School Application:

- ☐ List the academic, technical, and workplace standards used to develop the program of study;
- ☐ Complete all course level details;
- ☐ List teacher certification requirements;
- ☐ Describe program of study alignment and opportunities for career exploration;
- ☐ Indicate the Career and Technical Student Organization (CTSO);
- ☐ Complete and upload the Middle School Program of Study Matrix; and
- ☐ Complete and upload the Assurances and Signatures.

SECTION III - PROGRAM OF STUDY APPLICATION PROCEDURES

Required Attachments to the CTE Program of Study Application:

☐ Upload the *Program of Study Matrix*; and

☐ Upload the Assurances and Signatures.

APPENDIX A - URL REFERENCE LIST

[14 DE Admin. Code 505] – High School Graduation Requirements and Diplomas
https://regulations.delaware.gov/AdminCode/title14/500/505.shtml#TopOfPage

[14 DE Admin. Code 507] – Student Success Planning
https://regulations.delaware.gov/AdminCode/title14/500/507.shtml#TopOfPage

[14 DE Admin. Code 1505] – Standard Certificate
http://regulations.delaware.gov/AdminCode/title14/1500/1505.shtml#TopOfPage

[14 DE Admin. Code 1510] – Issuance of Initial License
http://regulations.delaware.gov/AdminCode/title14/1500/1510.shtml#TopOfPage

[14 DE Admin. Code 1550] – AgriScience Teacher
http://regulations.delaware.gov/AdminCode/title14/1500/1550.shtml#TopOfPage

[14 DE Admin. Code 1551] – Business Education Teacher
http://regulations.delaware.gov/AdminCode/title14/1500/1551.shtml#TopOfPage

[14 DE Admin. Code 1554] – Family and Consumer Sciences Teacher
http://regulations.delaware.gov/AdminCode/title14/1500/1554.shtml#TopOfPage

[14 DE Admin. Code 1555] – Marketing Education Teacher
https://regulations.delaware.gov/AdminCode/title14/1500/1555.shtml#TopOfPage

[14 DE Admin. Code 1557] – Technology Education Teacher
http://regulations.delaware.gov/AdminCode/title14/1500/1557.shtml#TopOfPage

[14 DE Admin. Code 1598] – Delaware Professional Development Standards
https://regulations.delaware.gov/AdminCode/title14/1500/1598.shtml#TopOfPage

[14 DE Admin. Code 1559] – Skilled and Technical Sciences Teacher
http://regulations.delaware.gov/AdminCode/title14/1500/1559.shtml#TopOfPage

[19 DE Admin. Code 1101] – Apprenticeship and Training Regulations
https://regulations.delaware.gov/AdminCode/title19/1000/1100/1101.shtml#TopOfPage

APPENDIX A - URL REFERENCE LIST

Advance CTE
https://careertech.org/

Career Clusters® Framework
http://www.careertech.org/Career-Clusters

Delaware CTE Fiscal and Accountability Guidelines
https://education.delaware.gov/wp-content/uploads/2019/04/2017_08_delaware_cte_fiscal_and_accountability_policies_and_procedures.pdf

Delaware CTE Program of Study Application
https://education.delaware.gov/wp-content/uploads/2019/08/CTE_POS_Application_Template_2019.docx

Delaware Department of Labor
https://labor.delaware.gov/

Delaware Department of Labor – Occupations and Industry Projections
https://labor.delaware.gov/divisions/oolmi/

Delaware Educator Data System (DEEDS)
https://education.delaware.gov/educators/educator-credentialing/credentialing-application-deeds/

Delaware Pathways
https://delawarepathways.org

Delaware Workforce Development Board
https://labor.delaware.gov/wib/

Economic Development and Employer Planning System (EDEPS)
http://www.edeps.org/

EdAccess
https://launchpad.classlink.com/ddoe

Labor Market Information (LMI) Instructions & Guidance
https://education.delaware.gov/wp-content/uploads/2019/08/CTE_2017-DDOE-CTE-LMI-Instructions_Guidance-for-POS-Applications.pdf

Labor Market Information (LMI) Review
https://education.delaware.gov/wp-content/uploads/2019/08/CTE_2019-DDOE-CTE-LMI-Review-for-POS-Applications.docx

APPENDIX A - URL REFERENCE LIST

Program of Study Matrix

https://education.delaware.gov/wp-content/uploads/2019/08/CTE_POS_Matrix_Template_2019.doc

Safety First: Safe Instructional Practices in the Classroom and Laboratory

http://regulations.delaware.gov/AdminCode/title14/800/2011SafetyFirstManual.pdf

State-Model CTE Programs of Study

http://dedoe.schoolwires.net/Page/2016

US Bureau of Labor Statistics (BLS)

http://www.bls.gov/

Workforce Innovation and Opportunities Act (WIOA)

https://www.dol.gov/agencies/eta/wioa

APPENDIX B – CAREER & TECHNICAL EDUCATION CONTACT INFORMATION

Delaware Department of Education **Career and Technical Education & STEM Staff** **Phone: 302.735.4015** **Fax: 302.739.1780**
Luke Rhine, Director luke.rhine@doe.k12.de.us
Peggy Enslen, Ed.D., Education Associate Health Sciences | Law, Public Safety, Corrections & Security peggy.enslen@doe.k12.de.us
Mike Fitzgerald, Education Associate Architecture & Construction | AV Technology & Communications | IT |Manufacturing |STEM mike.fitzgerald@doe.k12.de.us
Virginia Forcucci, Education Associate Education & Training | Hospitality & Tourism | Human Services virginia.forcucci@doe.k12.de.us
Bart Gill, Ph.D., Education Associate Architecture & Construction | Ag, Food & Natural Resources | Transportation, Distribution & Logistics bart.gill@doe.k12.de.us
Jessica Hansen, Education Associate Data Systems for CTE & STEM jessica.hansen@doe.k12.de.us
Nicole Lawless, Secretary nicole.lawless@doe.k12.de.us
Sandra Mullett, Administrative Secretary sandra.mullett@doe.k12.de.us
Lisa Stoner-Torbert, Policy Advisor lisa.stoner-torbert@doe.k12.de.us
Carmen Strollo, Field Agent carmen.strollo@doe.k12.de.us
Jonathan Wickert, Ed.D., Education Associate Postsecondary Programs, Work-Based Learning & Apprenticeship jonathan.wickert@doe.k12.de.us
Lisa Wilson, Ed.D., Education Associate Business Management & Administration | Finance | Marketing lisa.wilson@doe.k12.de.us

APPENDIX C – DELAWARE CTE POSTSECONDARY CLOCK-HOUR WAIVER GUIDELINES

The following policy language will go into effect July 1, 2023.

Perkins eligible postsecondary credential programs, as defined in Delaware's State Plan for Career and Technical Education, require a 144 clock-hour minimum for short-term credential programs. Institutions may request to waive the clock hour requirement as outlined below and in Delaware's CTE Program of Study Policies and Procedures.

Postsecondary institutions seeking an exemption to the 144 clock-hour requirement must submit the following to the CTE Education Associate for Postsecondary Programs, Work-Based Learning, and Apprenticeship as found in Appendix B of Delaware's CTE Program of Study Policies and Procedures.

The **clock-hour waiver** must include the items below:

1. Institution Name, Program Name, Contact Name and Email, and Date of Request;
2. Number of clock hours;
3. Name(s) of embedded or culminating credentials on approved postsecondary credential list;
4. Anticipated annual program enrollment and completion; and
5. Short-term (immediate to two-year) and long-term (five years or greater) labor market data/projections demonstrating sufficient demand in the local, state, and/or regional economies. Projections must include current employment, projected demand/growth, and median wage. Acceptable sources include, but are not limited to, Delaware Joblink, Burning Glass/EMSI, and EDEPS. If there is not sufficient labor market data to support employer demand, letters of commitment from employers are *required*.

Letters of commitment from employers are strongly encouraged and should include statements affirming that:

- Successful program completion is required for employment or formally results in hiring preference with the employer, as indicated on job posting or description materials;
- Successful program completion results in a gross wage (including non-payroll compensation) with the employer that is within 10% of the state median wage rate for the industry;
- Program completion for current employees results in a base compensation increase, guarantees movement from part-time to full-time employment, or results in positional advancement; and
- The number of total program completers the employer projects to hire and/or commit to hiring in the short-term based on current economic conditions.

Waiver renewal occurs every five (5) years from initial approval and requires the same documentation found above. In addition, past and current program outcomes (sourced from the postsecondary CTE data system) that support demand should be documented and include:

1. Program enrollment and completion rates;
2. Post-program placement rate; and
3. Quarterly wage data for program completers.

APPENDIX D – CTE SECONDARY RECOGNIZED POSTSECONDARY CREDENTIAL REQUEST (5S1)

LEAs seeking to add a recognized postsecondary credential that is not on the state approved list should download the Recognized Postsecondary Credential (Perkins Indicator 5S1) request for approval form from the "Supporting Documents" page in the POS application on the CTE Portal, complete the form, and upload the form on the "Supporting Documents" page.

An industry recognized credential (IRC) is a certificate, license, or credential that is earned through a state-approved CTE program of study which holds value at the professional level, postsecondary level, or in an Associate or Baccalaureate degree program. Attainment of an IRC will be specific to the approved CTE program of study and the credentialing body and/or licensing institution. Delaware's Perkins V state plan defines the attainment of a recognized postsecondary credential based on the percentage of CTE concentrators graduating from high school with a recognized postsecondary credential. For both accountability models, recognized postsecondary credentials are approved as part of a CTE program of study.

The Delaware Department of Education uses the following criteria to classify recognized postsecondary credentials as a program quality measure. **Please describe how the recognized postsecondary credential meets the criteria for Program Quality Measure approval as indicated below.**

1. **List the Program(s) of Study associated with the proposed credential.**

2. **Share the name of the sponsor approved to proctor examination for the credential.**

3. **In the space provided, describe how the proposed credential is stackable (i.e. skills learned lead to opportunities for continuous or advanced training and education) through at least two (2) of the following criteria:**
   i. *Postsecondary education in the form of advanced standing, accelerated time to completion, and/or credit for prior learning at an institution of higher education;*
   ii. *Training programs by satisfying prerequisite requirements to obtain a related or advanced recognized credential and/or providing advanced standing, accelerated time to completion, and/or credit for prior learning within an industry recognized training or apprenticeship program; or*
   iii. *Employment in an aligned occupation (e.g. endorsed by an employer or employer association as having value in the industry regionally or nationally, supports cross-industry migration, and/or meets prerequisites required to enter or advance within the specific industry).*

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

Delaware Department of Education
CTE & STEM Office
401 Federal Street, Suite 256
Dover, DE 19901
Phone: 302.735.4015
Submit application via the CTE Portal in EdAccess

DELAWARE CTE PROGRAM OF STUDY APPLICATION

LOCAL EDUCATION AGENCY INFORMATION		
Local Education Agency (LEA):		
School(s) where the Program of Study will be Located:		**Program of Study Start Date:**
LEA CTE Coordinator Name:	**Phone:**	**E-Mail Address:**
Career Cluster Title:	**Career Pathway Title:**	**Program of Study Title:**
CTE Program of Study Course Titles & Sequence: 1. 2. 3.		
CTE Program of Study Request: ☐ State-model CTE Program of Study ☐ Local CTE Program of Study		
ASSURANCES & SIGNATURES		

CTE Program of Study approval and funding is contingent upon the following assurances:

1. The LEA will comply with Delaware Administrative Code, 14 DE Admin. 525, Requirements for Career and Technical Education Programs and the Delaware State Plan for the Strengthening Career and Technical Education for the 21st Century Act (known as Perkins V);
2. The LEA will submit CTE program data as required by the Delaware Department of Education;
3. All teachers are certified in the appropriate CTE area and participate in program specific professional learning;
4. The LEA will convene and engage a program advisory committee for the purposes of program development, implementation, and continuous improvement;
5. All students have equal access to the program of study as well as early career/early college options;
6. Career and Technical Student Organizations are integral components of the program of study;
7. The LEA will maintain safe facilities and equipment aligned with the program of study goals; and
8. A process for continuous improvement has been established, which includes a model of evaluation and program improvement.

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

LEA CTE Coordinator Signature:	Date:
LEA Chief School Officer Signature:	Date:

PROGRAM ADVISORY COMMITTEE MEMBER INFORMATION
Complete the list of program advisory committee members. Program of study representatives should include, but are not limited to: CTE and academic teachers, CTE/curriculum district coordinators, school counselors, business and industry representatives, labor representatives, and post-secondary partners. Community stakeholders including parents and students can also be considered. *Attach additional information if applicable*.

Name:	Title:
Affiliation:	
Address:	
Phone:	E-Mail:
Area of Expertise:	
Representing: ☐ Business/Industry ☐ Secondary Education ☐ Post-Secondary Education ☐ Community/Other	

Name:	Title:
Affiliation:	
Address:	
Phone:	E-Mail:
Area of Expertise:	

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

Representing:
☐ Business/Industry
☐ Secondary Education
☐ Post-Secondary Education
☐ Community/Other

Name:	Title:

Affiliation:

Address:

Phone:	E-Mail:

Area of Expertise:

Representing:
☐ Business/Industry
☐ Secondary Education
☐ Post-Secondary Education
☐ Community/Other

Name:	Title:

Affiliation:

Address:

Phone:	E-Mail:

Area of Expertise:

Representing:
☐ Business/Industry
☐ Secondary Education
☐ Post-Secondary Education
☐ Community/Other

Name:	Title:

Affiliation:

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

Address:
Phone: E-Mail:
Area of Expertise:
Representing: ☐   Business/Industry ☐   Secondary Education ☐   Post-Secondary Education ☐   Community/Other

LABOR MARKET DEMAND
Certify that a labor market needs analysis has been completed for the proposed CTE program of study. Attach the Labor Market Information document.
Access the Labor Market Information document. ☐   The LEA certifies that regional, state, and local labor market data have been reviewed to assure a demand exists for the POS occupations and that the number of POS completers will not significantly exceed this demand. Department of Labor data are available and/or documented. Supporting evidence of supply and demand is submitted with this proposal. ☐   No data exist for POS due to a unique labor market demand. Supporting evidence of demand is submitted with this proposal. Evidence may include, but is not limited to: real-time labor market information, documentation of national, regional, state, or local labor trends, or letters from employers or workforce agencies documenting projected employment specific to the career pathway.

ACADEMIC AND TECHNICAL SKILL STANDARDS
List the academic, technical, and workplace skills and knowledge used to develop the program of study.
Title and source of academic standards:
Title and source of technical skill standards:
Title and source of workplace or other skill standards, as applicable:

EARLY CAREER AND EARLY COLLEGE OPPORTUNITIES
Identify CTE program of study early college opportunities, early career opportunities, industry recognized credentials, and the program quality measures for the program of study. *Attach articulation/dual enrollment agreement(s).*

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

Describe early college opportunities (i.e. advanced placement, dual enrollment, articulated credit) and options for two- and four-year degree and/or certification program alignment (attach articulation/dual enrollment agreement). The partner organization and hours of credit earned should be included:
Describe early career opportunities (i.e. work-based learning experiences or industry-mentored projects):
List industry recognized credentials available (i.e. industry recognized certification, licenses, educational certificates, or journeyperson's certificate for registered apprenticeship). The partner organization and title of credential should be included:
List program quality measures for the program of study (see Program of Study Policy for details): ☐ Industry recognized certification(s) (specify): ☐ License(s) (specify): ☐ Educational certificate(s) (specify): ☐ Journeyperson's certificate for Registered Apprenticeship (specify): ☐ Dual enrollment credit(s) (specify): ☐ Articulated credit(s) (specify): ☐ Advanced placement credit(s) (specify): ☐ Other (specify):

POS OVERVIEW, COURSE DESCRIPTIONS, END-OF-COURSE, AND PROGRAM ASSESSMENTS
Provide a CTE program of study overview that broadly describes the program and student expectations. Identify end-of-program assessment(s) and opportunities for students to participate in early college and early career experiences. List each course title in the CTE program of study. Provide an overview of each course and define what students should know and be able to demonstrate upon completion of each level. Identify appropriate end-of-course assessment(s).
CTE Program of Study Overview:
End-of-Program Assessment(s): ☐ Industry recognized certification(s) (specify): ☐ License(s) (specify): ☐ Educational certificate(s) (specify): ☐ Journeyperson's certificate for Registered Apprenticeship (specify): ☐ Nationally recognized assessment(s) (specify): ☐ State developed assessment(s) (specify): ☐ Locally developed assessment(s) (specify):

☐ Other (specify):

Course title:
Course description (include prerequisites):
Course knowledge and skills (what students will know and be able to do):
End-of-Course Assessment(s): ☐ Teacher designed assessment(s): ☐ LEA designed assessment(s): ☐ State designed assessment(s): ☐ Nationally recognized assessment(s) (specify): ☐ Industry recognized certification(s) (specify): ☐ License(s) (specify): ☐ Educational certificate(s) (specify): ☐ Journeyperson's certificate for Registered Apprenticeship (specify): ☐ Other (specify):

Course title:
Course description (include prerequisites):
Course knowledge and skills (what students will know and be able to do):
End-of-Course Assessment(s): ☐ Teacher designed assessment(s): ☐ LEA designed assessment(s): ☐ State designed assessment(s): ☐ Nationally recognized assessment(s) (specify): ☐ Industry recognized certification(s) (specify): ☐ License(s) (specify): ☐ Educational certificate(s) (specify): ☐ Journeyperson's certificate for Registered Apprenticeship (specify): ☐ Other (specify):

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

Course title:
Course description (include prerequisites):
Course knowledge and skills (what students will know and be able to do):
End-of-Course Assessment(s): ☐   Teacher designed assessment(s): ☐   LEA designed assessment(s): ☐   State designed assessment(s): ☐   Nationally recognized assessment(s) (specify): ☐   Industry recognized certification(s) (specify): ☐   License(s) (specify): ☐   Educational certificate(s) (specify): ☐   Journeyperson's certificate for Registered Apprenticeship (specify): ☐   Other (specify):

TEACHER CERTIFICATION
Provide valid teacher certification(s), candidate experience, pre-requisite and requisite licensure or certification requirement(s) for POS teachers.
POS teacher requirements include: ☐   Teacher certification(s) (list): ☐   Candidate experience (describe): ☐   Pre-requisite professional licensure or certification requirement(s) (list): ☐   Requisite professional licensure or certification requirement(s) (list): ☐   Professional Licensure or Certification Credit Equivalency (list): ☐   Other (describe):

VALUE-ADDED OPPORTUNITIES
List extended early career and college credit opportunities available during the student's senior year. Document transition services, cooperative learning experiences, additional dual enrollment, or other.
Opportunities for extended and accelerated learning include: ☐   Cooperative education (describe): ☐   Structured internship (describe): ☐   Dual enrollment (list): ☐   Advanced Placement (list): ☐   Transition services (describe): ☐   Other (describe):

APPENDIX E – DELAWARE CTE PROGRAM OF STUDY APPLICATION

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
Indicate the Career and Technical Student Organization (CTSO) affiliation by checking the appropriate box.

☐	BPA	☐	FFA
☐	DECA	☐	HOSA
☐	FCCLA	☐	SkillsUSA
☐	Educators Rising	☐	TSA

PROGRAM OF STUDY MATRIX
Complete the program of study matrix to demonstrate the alignment of academic and technical courses, culminating early career and/or early college experiences. Identify appropriate certification and licensure options, opportunities for obtaining early college credit (courses with articulated or dual enrollment credit agreements should be appropriately designated within the matrix), the post-secondary program sequence, and potential career options. *Attach the Program of Study Matrix*.
Access the Program of Study Matrix.

APPENDIX F - DELAWARE CTE MIDDLE SCHOOL APPLICATION

Delaware Department of Education
CTE & STEM Office
401 Federal Street, Suite 256
Dover, DE 19901
Phone: 302.735.4015
** *Submit application via the CTE Portal in EdAccess***

DELAWARE CTE MIDDLE SCHOOL APPLICATION

LOCAL EDUCATION AGENCY INFORMATION

Local Education Agency (LEA):

School(s) where the Course will be Located:	**Start Date:**

LEA CTE Coordinator Name: **Phone:**   **E-Mail Address:**

Course Title:	**Course Title:**	**Course Title:**
Grade Level:	**Grade Level:**	**Grade Level:**

CTE Program(s) of Study Alignment:

High School: **Program(s) of Study:**   **CTE Program of Study Request:**

☐ State-model CTE Program of Study

☐ Local CTE Program of Study

ASSURANCES & SIGNATURES

CTE Program of Study approval and funding is contingent upon the following assurances:

1. The LEA will comply with Delaware Administrative Code, 14 DE Admin. 525, Requirements for Career and Technical Education Programs and the Delaware State Plan for the Strengthening Career and Technical Education for the 21st Century Act (known as Perkins V);
2. The LEA will submit CTE program data as required by the Delaware Department of Education;
3. All teachers are certified in the appropriate CTE area and participate in program specific professional learning;
4. The LEA will convene and engage a program advisory committee for the purposes of program development, implementation, and continuous improvement;
5. All students have equal access to the program of study as well as early career/early college options;
6. Career and Technical Student Organizations are integral components of the program of study;
7. The LEA will maintain safe facilities and equipment aligned with the program of study goals; and
8. A process for continuous improvement has been established, which includes a model of evaluation and program improvement.

APPENDIX F - DELAWARE CTE MIDDLE SCHOOL APPLICATION

LEA CTE Coordinator Signature:	Date:

LEA Chief School Officer Signature:	Date:

ACADEMIC AND TECHNICAL SKILL STANDARDS

List the academic, technical, and workplace skills and knowledge used to develop the CTE course.

Title and source of academic standards:

Title and source of technical skill standards:

Title and source of workplace or other skill standards, as applicable:

COURSE DESCRIPTIONS AND END-OF-COURSE ASSESSMENT

List the CTE middle school course title. Provide an overview of the course and define what students should know and be able to demonstrate upon completion. Identify appropriate end-of-course assessment(s).

Course title:

Course description (include prerequisites):

Course knowledge and skills (what students will know and be able to do):

End-of-Course Assessment(s):
☐ Teacher designed assessment:
☐ LEA designed assessment:
☐ State designed assessment:
☐ Nationally recognized exam (specify):
☐ Other (specify):

Course title:

Course description (include prerequisites):

Course knowledge and skills (what students will know and be able to do):

End-of-Course Assessment(s):
☐ Teacher designed assessment:
☐ LEA designed assessment:
☐ State designed assessment:
☐ Nationally recognized exam (specify):
☐ Other (specify):

Course title:

Course description (include prerequisites):

Course knowledge and skills (what students will know and be able to do):

End-of-Course Assessment(s):
☐ Teacher designed assessment:
☐ LEA designed assessment:
☐ State designed assessment:
☐ Nationally recognized exam (specify):
☐ Other (specify):

COURSE CURRICULUM

Identify the technical and/or academic curriculum utilized for development (if applicable):

TEACHER CERTIFICATION

Provide valid teacher certification(s), candidate experience, pre-requisite and requisite licensure or certification requirement(s) for POS teachers.

POS teacher requirements include:
☐ Teacher certification(s) (list):
☐ Candidate experience (describe):
☐ Pre-requisite professional licensure or certification requirement(s) (list):
☐ Requisite professional licensure or certification requirement(s) (list):
☐ Professional Licensure or Certification Credit Equivalency (list):
☐ Other (describe):

APPENDIX F - DELAWARE CTE MIDDLE SCHOOL APPLICATION

MIDDLE SCHOOL-HIGH SCHOOL ARTICULATION
Describe how the Middle School CTE course is aligned with one or more CTE Programs of Study at the High School level. Describe how the school culture promotes career exploration and the opportunity for students to learn and apply both academic and technical skills.
Middle School-High School Alignment:
Culture of Career-Readiness:

CAREER AND TECHNICAL STUDENT ORGANIZATIONS
Indicate the Career and Technical Student Organization (CTSO) affiliation by checking the appropriate box.

☐ BPA   ☐ FFA

☐ DECA   ☐ HOSA

☐ FCCLA   ☐ TSA

MIDDLE SCHOOL MATRIX
Complete the middle school matrix with high school partners to demonstrate the alignment of academic and technical courses, culminating early career and/or early college experiences at the high school level. *Attach the Middle School Matrix*.
Access the Middle School Matrix.

DEPARTMENT OF EDUCATION MIDDLE SCHOOL APPROVAL	
The following section will be completed by staff from the Delaware Department of Education, CTE & STEM Office and reported to the LEA as part of the CTE Middle School approval process.	
Date Delaware CTE Middle School Application Received:	
Local Education Agency (LEA): **School(s):**	**Middle School Course Start Date:**
LEA CTE Coordinator Name: **Phone:** **E-Mail Address:**	
Course Title, Course Code, and Funding Level: **Grade Level:**	
CTE Program(s) of Study Alignment: High School: Program(s) of Study:	
CTE Program of Study Attachments: ☐ Middle School Matrix	

APPENDIX F - DELAWARE CTE MIDDLE SCHOOL APPLICATION

DDOE CTE & STEM Director Signature:	Date:
DDOE Chief Academic Officer Signature:	Date:

APPENDIX G – PROGRAM OF STUDY REVIEW CYCLE

State and local CTE model programs of study (POS) are reviewed and revised with input from internal and external stakeholders every five (5) years, or sooner as indicated by shifts in industry standards or labor market needs. This program iteration process promotes equitable outcomes for every student including high school graduation, continuing education, and competitive employment in high skill, high wage, in-demand occupations. As a result, state or local POS level data and the LEA Local Needs Assessment, as applicable, are used to create a Five-Year Program of Study Plan (POS Plan) (see Appendix H) to support continuous program improvement and success outcomes for all learners.

The Delaware Department of Education and local education agencies should follow the following steps when revising state or local CTE programs of study. Once the five-year review is complete, the amended program of study must be submitted through the CTE Portal for approval. The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in the development of a plan to review the local CTE programs of study and the POS Plan. If the LEA would like technical assistance please contact the CTE & STEM policy advisor (see Appendix B).

Program of Study Review Cycle
1. Collect, review, analyze and revise local, state, and regional labor market information:
   The foundation of every CTE POS is grounded in workforce need and demand. All POS require continuous evaluation to effectively place students in gainful employment and postsecondary education. Therefore, local, state, and regional labor market information (LMI) supply and demand factors must be analyzed every five (5) years to ensure that the POS continues to be responsive to evolving workforce needs. Review and revision of LMI is used to inform CTE POS improvement through the identification of baseline trends, education requirements, related experience, and industry certifications needed for placement in high skill, high wage, in-demand occupations.

   Resources for obtaining current LMI are available through the following links (see Appendix A):
   - Delaware Department of Labor – provides 10-year occupation and industry projections at the state and county levels;
   - Delaware 2028 Occupation and Industry Projections – provides a copy of the labor market projections including a section on occupations by Career Cluster; and
   - Economic Development and Employer Planning System (EDEPS) – uses Bureau of Labor Statistics (BLS) data to provide national, state, and regional data by occupation, industry, and career cluster. The "Unit of Analysis" selection provides both demand and supply data (postsecondary completion) for most occupational areas.

   The DDOE provides *Labor Market Information (LMI) Instructions & Guidance* and *Labor Market Information (LMI) Review* documents (see Appendix A) to assist in the analysis of related LMI. The *LMI Instructions & Guidance* document provides an overview of long-term LMI data, a process to collect and report data, as

well as suggested background and methodology that can be applied to analyze LMI data. Completing the LMI Review documents is the first step in revising a CTE program of study. Occupational demand and supporting LMI is a prerequisite to CTE program of study approval and revision.

The DDOE and LEAs may also consider other data including real-time LMI (see LMI Instructions & Guidance Document).   For instance, at times it may appear that a program-related occupation has a below-average growth rate, but the employment projection for the industry may have above average growth prospects. For example, Delaware does not have employment projection data on plumbers (under the Construction Career Pathway). However, ten-year employment growth for the Construction pathway is a robust 25 percent. In addition, nation-wide employment data on plumbers also indicate that this occupation is growing at a faster-than-average pace.

In some instances, demand and supply might no longer support continuation of the program of study. In this instance the LEA may consider a phased transition of the POS for current students to complete their studies, or they may plan to significantly revise the POS to target areas of high need and growth that are not currently reflected in the career cluster. For technical assistance, please contact the CTE & STEM policy advisor (see Appendix B).

2. Collect, review, and analyze enrollment and performance data:
    Available Perkins V performance data (see Delaware CTE Fiscal and Accountability guidance) from the past five (5) years at the programmatic level, along with the most recent and captured in the state or local POS level data and LEA Needs Assessment, as applicable, should be analyzed in a self-study to target where investment in curricular revision will lead to continuous improvement of the program to:
    - Accelerate the academic proficiency of students (Perkins indicators: 1S1 – Graduation, 2S1 – English Language Arts, 2S2 – Mathematics, and 2S3 - Science);
    - Enhance the persistence and placement of students in the CTE POS (Perkins indicators: 4S1 – Nontraditional and Placement – 5S1, as well as enrollment patterns and trends); and
    - Advance the achievement of students in college and career readiness measures of program quality (Perkins indicators: 5S1 - Industry Recognized Credential, 5S2 - Postsecondary Credit, and 5S1 - Work Based Learning).

    The measures of program quality are discreet career readiness measures within the Delaware Student Success Framework (DSSF) (see Appendix A). Program level Perkins V data is available in the reports tab located inside the CTE Portal. Results of the self-study will be used to inform the Five-Year Program of Study Plan (POS Plan).

3. Engage postsecondary partners:
    Every POS must include a defined three (3) to six (6) course sequence that articulates to opportunities for postsecondary credit achievement. As such, the POS review must include input from registered apprenticeship and postsecondary partners. Postsecondary partners should be engaged early to review content and to suggest how to further align POS curriculum with:

APPENDIX G – PROGRAM OF STUDY REVIEW CYCLE

- Stackable industry recognized credentials, certifications, and/or a license that holds value at the professional or postsecondary level;
- Advanced post-secondary or registered apprenticeship credit through articulated credit agreements, dual enrollment, Advanced Placement (AP), or International Bachelorette (IB) programs; and
- Advanced placement in a registered apprenticeship program or a degree bearing associate or baccalaureate program.

Engaging postsecondary partners early will lead to increased opportunity for system alignment, additional accelerated post-secondary credit opportunities, and increased access to in-demand careers.

4. Meet with the Program Advisory Committee (PAC) to gather feedback on planned improvements:
   Decisions about improvement for programs of study are guided by feedback from internal and external stakeholders who are representative of: employers, community members, teachers and administrators, students and parents, apprenticeship and post-secondary partners (PAC). The PAC provides input in the update of Labor Market Information (LMI), review of enrollment and performance data through the captured in the state or local POS level data and LEA Needs Assessment, as applicable, and guidance in the enhancement of the POS. Planned improvements to the POS curriculum are informed by LMI, as well as enrollment and performance data to support creation of efficient instructional practices that lead students to in-demand career opportunities through industry credentials, early college and early career experiences. Feedback gathered from the PAC is used to refine the revision of the POS and develop the Five-Year Program of Study Plan (POS Plan).

5. Update Program of Study:
   The extent of revision required for a POS will vary based on the LMI, enrollment and performance data, and postsecondary partner review, as well as input from the PAC. The update and revision of every POS is strongly influenced by need and demand factors identified in sources such as: LMI; change in academic or technical standards; engagement with registered apprenticeship and postsecondary partners; alignment of industry credentials; expansion of work-based learning; adjustments for learners to earn accelerated post-secondary credit; enrollment and performance data; and recommendations from the PAC. Due to the influence of these factors, the revision of a POS will include the update and resubmission of LMI, POS Application, POS Matrix, updated Memorandums of Understanding (as applicable) and the Five-Year Program of Study Plan (optional).

   Following is a suggested checklist of steps to guide the POS review and revision, as necessary, for state and local CTE programs of study:
   ✓ Academic and technical skill standards;
   ✓ Program quality measures (i.e. industry credentials, articulated and advance credit and placement, work-based learning opportunities);
   ✓ Program and course descriptions, as well as end-of-program and course assessments;
   ✓ Knowledge and skill statements;
   ✓ POS teacher certification requirements;

APPENDIX G – PROGRAM OF STUDY REVIEW CYCLE

- ✓ Related Career and Technical Student Organizations;
- ✓ POS matrix;
- ✓ POS Memorandums of Understanding; and
- ✓ POS Five-Year Plan.

For technical assistance, please contact the CTE & STEM policy advisor (see Appendix B).

6. Create a Five-Year Program of Study plan to promote continuous program improvement:
A Five-Year Program of Study Plan (POS Plan) (see Appendix H) is developed for each state and local POS as part of the POS review cycle. The POS Plan must include how data will be disaggregated and analyzed at the school and program level to inform programmatic decisions and promote continuous improvement. Plans are to be developed, approved, and evaluated by the LEA with progress reported to the program advisory committee (PAC) on an annual basis. When developing the POS Plan, the LEA will make use of the current data captured in the state or local POS level data and LEA Needs Assessment, as applicable, to develop the POS Plan. Review of the plan should be conducted yearly with internal and external discussion focused on progress made toward meeting metrics and targets identified in the POS Plan.

Elements of the POS Plan should include how the POS will:
- Accelerate with equity the academic and technical proficiency of every student;
- Assure that every student has the opportunity to engage with employers through authentic work-based learning experiences, earn an industry recognized credential, and obtain advanced postsecondary credits and placement; and
- Support persistence through the POS and placement of every student in continuing education or an in-demand career.

Development of the POS Plan should be guided by required data elements for program improvement, a timeline for each evaluation activity, the identification of staff responsible for collecting and analyzing data, checkpoints where the program of study team will review and reflect on the data, and feedback loops that promote continuous program improvement. In creating the POS Plan, LEA staff are encouraged to move beyond values required for base compliance and to identify measures that reflect additional student need.

7. Submit the updated program of study proposal for approval:
The amended *Delaware CTE Program of Study Application* is submitted by November 30 of the school year via an amendment in the CTE Portal through EdAccess.

8. Implement 5-year program of study plan and meet with PAC annually
Through rigorous review, revision, and implementation guided by the Five-Year POS Plan, continuous POS improvement will provide every student the opportunity to continue their education and secure gainful employment. The review, revision, and implementation of programs is designed with the end-in-mind and focus on elements to further accelerate student achievement within the program of study model. Revised programs should always be student-centered and focus on advancing equitable and efficient instructional

APPENDIX G – PROGRAM OF STUDY REVIEW CYCLE

practices. An annual review by PAC members should focus on progress made toward meeting metrics and targets identified in the POS Plan. The Delaware Department of Education, CTE & STEM education associates are available to assist LEAs in program of study review and revision. If an LEA would like technical assistance, please contact the CTE & STEM policy advisor (see Appendix B).

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Five-Year Program of Study Plan

State and local CTE model programs of study (POS) are reviewed and revised with input from internal and external stakeholders every five (5) years, or sooner as indicated by shifts in industry standards or labor market needs. This program iteration process promotes equitable outcomes for every student including high school graduation, continuing education, and competitive employment in high skill, high wage, in-demand careers. As a result, state or local POS level data and the Local Education Agency's (LEA) most recent Local Needs Assessment are used, as appropriate, to create the Five-Year Program of Study Plan (POS Plan) to support continuous program improvement and successful outcomes for all learners.

Responses within the POS Plan provide an overview of the state and local delivery model for the program of study and are reflective of quantitative and qualitative program level data. POS level data and the POS Plan are reviewed in consultation with state and local Program Advisory Committee (PAC) members. These tools are organized across five (5) core priority areas, which include:

1. Quality Improvement: connects responses from the LEA Needs Assessment, and local continuous improvement routines to those identified strengths and opportunities that exist to improve the POS;
2. Program Quality: focuses on the evolution of the POS, as well as supports for all students to access and be successful in the CTE program of study, leading to careers in in-demand industry sectors and occupations that provide a living wage;
3. Student Readiness and Equity: connects POS academic and technical skill preparation to early postsecondary credit opportunities, as well as the identification of disparities or gaps that exist across youth performance and how the LEA will address such disparities or gaps through a multi-tiered system of supports (MTSS) for all learners; and
4. Systems Alignment: connects employer partners, community stakeholders, and local/state workforce partners to support career exploration and development, career and college advisement, and engagement within the local system of CTE to scale work-based learning opportunities for youth through the POS.

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Priority 1: POS Quality Improvement
Instructions: Responses to questions one (1) and two (2) should define the overarching vision for the CTE program of study (POS) and those strengths and opportunities that exist to achieve the stated vision. The vision statement aligns to the local education agency's overarching vision for CTE and should be clear and measurable. Those identified strengths and opportunities should directly connect to quantitative captured in the state or local POS level data and LEA Needs Assessment, as applicable.

1.   **What is the overarching vision for the program of study?**

2.   **Use the following outline to provide a brief summary of the strengths and opportunities that exist for each POS core priority area:** *(Add additional bullets as needed)*

POS Core Priority Area	Key Strengths	Key Opportunities
a. Program of Study Quality	•	•
b. Student Readiness and Equity	•	•
c. Talent Development	•	•
d. Systems Alignment	•	•

Instructions: Responses to questions three (3) and four (4) should provide a goal statement for each POS core priority area and detail for related work activity. The POS goal statements should be clear, measurable, and align to the vision statement described in question one (1). The metric(s) of success and key actions should present a high-level overview of what data will be reviewed and what actions will be taken to ensure attainment of the goal.   Those human and fiscal resources should define the person(s) responsible for supporting the goal and if state and/or federal funding will be used to support the attainment of the goal. The performance routine should define how these goals will be managed at the local level, including what actions the LEA will take to address disparities or gaps in POS student performance as well as what actions will be taken if no meaningful progress has been achieved to meet the goal or to eliminate those disparities or gaps.

3.   **What are the overarching goals, measures of success, and key actions over the next five (5) years for the POS?** *(Add additional bullets as needed)*

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

POS Core Priority Area	Goal Statement	Metric(s) of Success	Key Actions	Human and Fiscal Resources
a. Program Quality	●	●	●	●
b. Student Readiness and Equity	●	●	●	●
c. Talent Development	●	●	●	●
d. Systems Alignment	●	●	●	●

4. What performance routines exist at the local level to monitor progress of the above POS goals?

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Priority 2: POS Program Quality

Instructions: Responses to question five (5) should connect local system activities to the improvement of the POS. Responses should also align to the goal statement described in question 3a. All information should directly connect to quantitative captured in the state or local POS level data and LEA Needs Assessment, as applicable.

5. **Use the following outline to describe the local system of CTE and process to improve the quality of CTE programs of study.**

a. Describe how the CTE POS will be improved to increase opportunities for student work-based learning experiences and attainment of industry-recognized credentials as well as the alignment of CTE programs of study to postsecondary credential and degree programs; and

b. Describe how information about the CTE program of study is shared with members of the community (i.e. communication to current and perspective students, parents, community stakeholders, and employers)

Instructions: Responses to question six (6) should connect student matriculation patterns in the POS to a multi-tiered system of supports (MTSS) for all learners. All information should directly connect to quantitative data captured in the state or local POS level data and LEA Needs Assessment, as applicable, specifically rates of student entrance, non-traditional concentration, graduation, and placement.

6. **Use the following outline to describe how all students are supported to enter and matriculate through the POS.**

a. Describe the strengths and opportunities that exist to support students to enter the POS and graduate high school on a path to earn a credential or degree and/or placement in the workforce; and

b. Define the multi-tiered system of supports that is in place for all learners to progress through the POS and into higher levels of education and entrance into the workforce.

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Priority 3: POS Student Readiness and Equity

Instructions: Responses to question seven (7) should align students' academic readiness to the program of study within a multi-tiered system of supports (MTSS) for all learners. Responses should also align to the goal statement described in question 3b. All information should directly connect to quantitative captured in the state or local POS level data and the LEA Needs Assessment, as applicable, specifically rates of student proficiency on English Language Arts, mathematics, and science state assessments.

7. **Use the following outline to describe the instructional model as it relates to student academic readiness:**

a. Describe the strengths and opportunities that exist to support student academic readiness and proficiency on state assessments in English Language Arts, mathematics, and science through the POS; and

b. Define the multi-tiered system of supports that is in place for all leaners to demonstrate readiness in academic subject areas prior to high school graduation through the POS.

Instructions: Responses to question eight (8) should align students' technical readiness to the POS within a multi-tiered system of supports (MTSS). All information should directly connect to quantitative data captured in the state or local POS level data and the LEA Needs Assessment, as applicable, specifically rates of student proficiency in the attainment of industry-recognized credentials and early postsecondary credit as well as completion of work-based learning programs.

8. **Use the following outline to describe the instructional model as it relates to POS student technical readiness:**

a. Describe the strengths and opportunities that exist to support student technical readiness and proficiency in the attainment of industry-recognized credentials and early postsecondary coursework as well as completion of work-based learning programs through the POS; and

b. Define the multi-tiered system of supports that is in place for all leaners to demonstrate readiness in technical subject areas prior to high school graduation through the POS.

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Priority 4: POS Talent Development

Instructions: Responses to question nine (9) should align POS educator supports for initial teacher licensure and success in the classroom with internal and external professional learning opportunities, such as: implementation practices, instructional delivery methods, or advanced technical skill development opportunities to help educators increase skill in the continuous improvement of the POS. Responses should also align to the goal statement described in question 3c. All information should directly connect to quantitative data captured in the L state or local POS level data and the LEA Needs Assessment, as applicable.

9. **Use the following outline to discuss the process and methods used to support qualified and diverse CTE teacher candidates in the POS:**

   a. Describe how new POS teachers (e.g. teacher with less than three years of experience) are supported to be effective in the classroom and the types of professional learning opportunities that are provided for new POS educators; and

   b. Describe how experienced POS educators and related faculty (e.g. teachers with more than three years of experience) are supported to acquire advanced certificates, degrees, or other types of professional learning that deepens their subject matter expertise and/or professional practice.

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Priority 5: POS Systems Alignment
Instructions: Responses to question ten (10) should describe how employers and community members are engaged in the local POS and how these required stakeholders were involved in the determination of local performance targets, completion of the state or local POS level data and the LEA Needs Assessment, as applicable, and development of responses to the five-year POS Plan. Responses should also align to the goal statement described in question 3d.

10. **Use the following outline to describe how employers and community partners are engaged and provide support to the local POS:**

a. Discuss the process used to gather information and feedback from those required stakeholders for completion of the state or local POS level data and the LEA Needs Assessment, as applicable, and five-year POS Plan, as well as to determine performance targets to improve the local POS;

b. Describe the process used with required stakeholders for providing POS related career information and employment opportunities to students through career awareness, exploration, and other work-based learning experiences; and

c. Describe the school counseling and career advisement process and how required stakeholders are engaged to support students within the POS.

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Delaware Department of Education
CTE & STEM Office
401 Federal Street, Suite 256
Dover, DE 19901
Phone: 302.735.4015

DELAWARE CTE FIVE-YEAR POS PLAN (5-YR POS PLAN)

LOCAL EDUCATION AGENCY INFORMATION
Local Education Agency (LEA):
Start Date for Five-Year POS Plan:

LEA CTE Coordinator Name:	**Phone:**	**E-Mail Address:**

Career Cluster Title:	**Career Pathway Title:**	**Program of Study Title:**

CTE Program of Study Course Title, Sequence & CIP Code:
1.
2.
3.

CTE Program of Study:
☐ State-model CTE Program of Study
☐ Local CTE Program of Study
Middle School(s) that feed into the POS enrollment:
School(s) where the POS is currently located:
Additional school(s) where the POS is planned to be offered:

PROGRAM ADVISORY COMMITTEE MEMBER INFORMATION
Complete the list of program advisory committee members. Program of study representatives should include, but are not limited to: CTE and academic teachers, CTE/curriculum district coordinators, school counselors, business and industry representatives, labor representatives, and post-secondary partners. Community stakeholders including parents and students can also be considered. *Following is a sample format for submitting Program Advisory Members*.
Name: Title:
Affiliation:

APPENDIX H – FIVE-YEAR PROGRAM OF STUDY (POS) PLAN

Address:
Phone: E-Mail:
Area of Expertise:
Representing: ☐   Business/Industry   ☐   Secondary Education   ☐   Post-Secondary Education   ☐   Community/Other