

# TEXAS STATE PLAN FOR STRENGTHENING CAREER AND TECHNICAL EDUCATION FOR THE 21<sup>ST</sup> CENTURY ACT (PERKINS V)





# TABLE OF CONTENTS

- I. PERKINS V STATE PLAN SUBMISSION FORM 5

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- II. NARRATIVE DESCRIPTIONS 7
  - A. Plan Development and Consultation 7
  - B. Program Administration and Implementation 8
    - 1. State’s Vision for Education and Workforce Development 8
    - 2. Implementing Career and Technical Education Programs and Programs of Study 22
    - 3. Meeting the Needs of Special Populations 47
    - 4. Preparing Teachers and Faculty 52
  - C. Fiscal Responsibility 56
  - D. Accountability for Results 63

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- III. ASSURANCES, CERTIFICATIONS, AND OTHER FORMS 68
  - A. Statutory Assurances 68
  - B. EDGAR Certifications 69
  - C. Other Forms 69

---

- IV. BUDGET 70
  - A. Budget Form 70

---

- V. STATE DETERMINED PERFORMANCE LEVELS 71
  - A. State Determined Performance Levels (SDPL) Form 74

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- APPENDIX 77

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U. S. Department of Education  
Office of Career, Technical, and Adult Education  
Strengthening Career and Technical Education for the 21st Century Act  
(Perkins V) State Plan

A. State Name: Texas

B. Eligible Agency (State Board) Submitting Plan on Behalf of State: Texas Education Agency on behalf of the Texas State Board of Education

C. Person at, or officially designated by, the eligible agency, identified in Item B above, who is responsible for answering questions regarding this plan. This is also the person designated as the “authorized representative” for the agency.

1. Name: Heather Justice
2. Official Position Title: Division Director
3. Agency: Teaxs Education Agency
4. Telephone: (512) 463-9253
5. Email: Heather.Justice@tea.texas.gov

D. Individual serving as the State Director for Career and Technical Education:

Check here if this individual is the same person identified in Item C above and then proceed to Item E below.

1. Name:
2. Official Position Title:
3. Agency:
4. Telephone: ( )
5. Email:

E. Type of Perkins V State Plan Submission - FY 2019 (Check one):

- 1-Year Transition Plan (FY2019 only) – *if an eligible agency selects this option, it will then complete Items G and J*
- State Plan (FY 2019-23) – *if an eligible agency selects this option, it will then complete Items G, I, and J*

F. Type of Perkins V State Plan Submission - Subsequent Years (Check one):4

- State Plan (FY 2020-23) - *if an eligible agency selects this option, it will then complete Items H, I, and J*
- State Plan Revisions (Please indicate year of submission: ) - *if an eligible agency selects this option, it will then complete Items H and J*

G. Submitting Perkins V State Plan as Part of a Workforce Innovation and Opportunities Act (WIOA) Combined State Plan – FY 2019 (Check one):

- Yes
- No

H. Submitting Perkins V State Plan as Part of a Workforce Innovation and Opportunities Act (WIOA) Combined State Plan – *Subsequent Years (Check one):*

- Yes (*If yes, please indicate year of submission:* )
- No

I. Governor's Joint Signatory Authority of the Perkins V State Plan (*Fill in text box and then check one box below*):

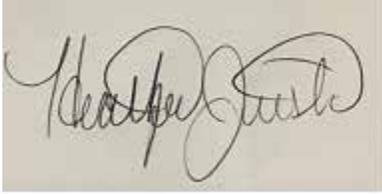
Date Governor was sent State Plan for signature: March 25, 2020

The Governor has provided a letter that he or she is jointly signing the State plan for submission to the Department.

The Governor has not provided a letter that he or she is jointly signing the State plan for submission to the Department.

J. By signing this document, the eligible entity, through its authorized representative, agrees:

1. To the assurances, certifications, and other forms enclosed in its State plan submission; and
2. That, to the best of my knowledge and belief, all information and data included in this State plan submission are true and correct.

Authorized Representative Identified in Item C Above (Printed Name) Heather Justice	Telephone:512-463-9253
Signature of Authorized Representative 	Date: March 23, 2020

# II. NARRATIVE DESCRIPTIONS

## A. PLAN DEVELOPMENT AND CONSULTATION

- 1. Describe how the State plan was developed in consultation with the stakeholders and in accordance with the procedures in section 122(c)(2) of Perkins V. See Text Box 1 for the statutory requirements for State plan consultation under section 122(c)(1) of Perkins V.**

The Texas Education Agency (TEA), in collaboration with its system partners, embarked on a collaborative process to develop the Perkins V State Plan. Utilizing the framework and outcomes of the State's Workforce Board Strategic Plan, the Higher Education 60x30 plan, and the State Board of Education's Long-Range Plan for Public Education, TEA developed a process to gather information on issues and opportunities that are of strategic significance to the state of Texas.

The following activities identified key areas of focus for the Perkins V plan. These key areas of focus served as the basis of the planning process and are the backbone of the Perkins V plan. These activities included:

- Listening sessions with state agencies, local education agencies, education service centers, institutions of higher education, workforce development boards, parents, community partners, institutions, and associations.
- See TEA Appendix 1 for Perkins V Stakeholder Engagement Meetings
- See TEA Appendix 1 and THECB Appendix 1 for Perkins V Stakeholder Engagement Meetings
- Training and feedback sessions at state conferences and associations
- See TEA Appendix 1 for Perkins V Stakeholder Engagement Meetings
- Established Perkins V writing team comprised of the Texas Education Agency (TEA), Texas Workforce Commission (TWC), Texas Higher Education Coordinating Board (THECB), and the Texas Workforce Investment Council (TWIC).

### Key Areas of Focus:

- Align CTE programs with high-wage, in-demand, and high skill occupations in the state of Texas
- Provide funding and opportunities for students to earn credentials (industry-based certifications, level I and II certifications, associate and bachelor's degrees)
- Reduce the burden of CTE reporting structures at the district level
- Provide opportunities for work-based learning in rural, suburban, and urban settings
- Construct, support and promote meaningful and effective CTE cross sector collaboration in Texas across secondary, postsecondary and the workforce.
- Continually improve the academic and technical content of CTE postsecondary programs as well as their administration, to reflect and respond to local, regional, and state workforce needs.
- Ensure equitable access to postsecondary CTE programs and credentials through multiple on and off-ramps for all students, with particular attention to Perkins special populations.

- The THECB and the TEA collaborated on regional focus groups and a statewide listening tour. A list of locations and events can be found in Appendix 1.

All meetings featured Perkins V context setting and information on the formation of the Perkins V State Plan. Each stakeholder session included a structured discussion designed to solicit input and feedback on questions consistent with the requirements of Perkins V, as well as participants in secondary meetings were provided a survey to select program quality indicators.

The state plan incorporated input from all stakeholders listed in section 122 (c)(2) of the Perkins V Act.

- 2. Consistent with section 122(e)(1) of Perkins V, each eligible agency must develop the portion of the State plan relating to the amount and uses of any funds proposed to be reserved for adult career and technical education, postsecondary career and technical education, and secondary career and technical education after consultation with the State agencies identified in section 122(e)(1)(A)-(C) of the Act. If a State agency, other than the eligible agency, finds a portion of the final State plan objectionable, the eligible agency must provide a copy of such objections and a description of its response in the final plan submitted to the Secretary. (Section 122(e)(2))**

The Perkins V writing team comprised of the Texas Education Agency, Texas Workforce Commission, Texas Higher Education Coordinating Board, and the Texas Workforce Investment Council. Funding conversations as well as the development and writing of the plan were discussed with this group. No objections are identified.

- 3. Describe opportunities for the public to comment in person and in writing on the State plan. (Section 122(d)(14) of Perkins V)**

- Listening Tour conducted December 2018-May 2019
- See TEA Appendix 1 and THECB Appendix 1 for Perkins V Stakeholder Engagement Meetings
- Public comment on industry-based certifications conducted January 2019-February 2019
- See TEA Appendix 1 for Perkins V Stakeholder Engagement Meetings
- Public comment on Perkins V transition plan conducted March 2019 – April 2019
- See TEA Appendix 1 for Perkins V Stakeholder Engagement Meetings
- Public comment on CTE programs of study conducted June 2019-July 2019
- See TEA Appendix 2 for Program of Study Public Comment Highlights
- Public comment on the Perkins V State Plan conducted January 2020- March 2020
- See TEA Appendix 2 for Public Comment responses
- Postsecondary Stakeholder Outreach conducted June-October 2019
- See THECB Appendix 1- Postsecondary Statewide Stakeholder Consultation Meetings

## **B. PROGRAM ADMINISTRATION AND IMPLEMENTATION**

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- 1. State's Vision for Education and Workforce Development**

- a. Provide a summary of State-supported workforce development activities (including education and training) in the State, including the degree to which the State's career and technical education programs and programs of study are aligned with and address the education and skill needs of the employers in the State identified by the State workforce development board. (Section 122(d)(1) of Perkins V)**

- The Texas Workforce System is comprised of the following entities:
- Governor’s Office of Economic Development and Tourism
- Texas Education Agency
- Texas Workforce Commission
- Texas Higher Education Coordinating Board
- Texas Veterans Commission
- Texas Juvenile Justice Department
- Texas Department of Criminal Justice (TDCJ) and its Windham School District
- Texas Health and Human Services Commission
- The Texas Association of Workforce Boards,
- Local workforce development boards,
- Community and technical colleges,
- Local adult education providers,
- Independent Local Education Agencies (LEA).

System partners serve a critical role in the development of a world-class workforce that enjoys a higher quality of life through economic, employment, and educational success by delivering programs, services, and initiatives that help Texas’ current and future workers secure competitive and sustainable employment.

#### Texas Workforce System Strategic Plan Vision and Mission

Vision: An innovative, world-class Texas workforce system ensures success in the dynamic global economy.

Mission: The mission of the Texas workforce system is to position Texas as a global economic leader by:

- Growing and sustaining a competitive workforce
- Aligning programs with employer needs
- Integrating system services
- Leveraging partnerships

The Texas Workforce System Strategic Plan focuses on four goals:

1. Focus on Employers
2. Engage in Partnerships
3. Align System Elements
4. Improve and Integrate Programs

Workforce system partners own components and implementation of the strategic plan (WIOA). The tables below provide the strategies for which the Texas Education Agency (TEA) is accountable. TEA holds responsibilities in goals 1, 2 and 3. TEA Appendix 3 provides the vision, mission, and goals of the Texas Workforce System Strategic Plan which also include specific activities as well as metrics for each.

Goal 1: Focus on Employers		
System Partner Strategy	Agency	System Objective
Involve business and industry in Texas Essential Knowledge and Skills review and programs of study.	TEA	Increase business and industry involvement
Use third-party, industry- based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.	TWC TEA THECB TVC TDCJ	Expand licensure and industry certification
Align career and technical education program content and outcomes with third- party, industry-based certifications.	TEA THECB	
Goal 2: Engage in Partnerships		
System Partner Strategy	Agency	System Objective
Increase access to, referral between, and outcomes of adult education programs and services.	TWC THECB	Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.
Goal 3: Align System Elements		
System Partner Strategy	Agency	System Objective
Develop and implement programs of study in community and technical colleges and align with secondary programs of study.	TEA THECB	Improve and enhance services, programs, and policies to facilitate effective and efficient transitions.

In addition to the Texas Workforce System Plan, the State Board of Education (SBOE) has developed a Long-Range Plan for Public Education which addresses the strengths, challenges, and opportunities for action across the Texas public education system. The SBOE plan highlights four focus areas of equity and access, student engagement and empowerment, family engagement and empowerment, and educator preparation, recruitment, and retention. These focus areas, when addressed by education officials, policymakers, and stakeholders, will significantly impact education in Texas. The Long-Range plan for Public Education helped shape the goals and vision of the Texas State Plan for the Strengthening Career and Technical Education for the 21st Century Act (Perkins V).

As a part of the work outlined in the State’s workforce strategic plan, The TEA engaged members of the workforce, secondary education, and higher education to advise on the development of programs of study, including coherent sequences of courses, industry-based certifications, and work-based learning to ensure students are prepared for high-skill, high-wage, and in-demand careers in Texas. The results of this work established 53 Statewide programs of study which include occupations that meet Texas labor market criteria including projected job growth, annual job openings, and the state median wage. Each program of study leads to postsecondary education, training opportunities, and aligns to statewide graduation endorsements.



### **Skilled Talent Pool Development Model**

Similarly, the Texas Higher Education Coordinating Board (THECB) established an agency advisory committee to implement industry-driven revisions to the Workforce Education Course Manual (WECM) that is utilized by colleges statewide in development of local career and technical education programs. The committee incorporates recommendations for industry-based certifications as part of the course review process. THECB also engages advisory committees to develop statewide postsecondary programs of study. Nineteen programs of study have been approved across three career clusters: Architecture and Construction, Health Sciences, and Information Technology. Representatives from secondary education, postsecondary institutions, and relevant workforce sectors composed each advisory committee.

THECB’s Accelerate Texas program supports the strategic plan through the integration of basic skills education with career and technical training to help adults acquire skills and certificates in high-demand occupations, including Occupational Skills Awards, Level 1 Certificates, and local certifications.

- b. Describe the State’s strategic vision and set of goals for preparing an educated and skilled workforce (including special populations) and for meeting the skilled workforce needs of employers, including in existing and emerging in-demand industry sectors and occupations as identified by the State, and how the State’s career and technical education programs will help to meet these goals. (Section 122(d)(2) of Perkins V)**

The Texas Education Agency, in coordination with the Texas Workforce Commission and the Texas Higher Education Coordinating Board make up the Tri-Agency partnership. The Tri-Agency partnership works to improve outcomes for the secondary and postsecondary students of Texas by making recommendations that build the skills of the Texas workforce and advance regional economic expansion, job creation and the goals of the 60x30TX plan. 60x30TX was launched in 2015 with a clear and bold vision: to be among the highest-achieving states in the country. 60x30TX is a roadmap to help Texas reach that future through higher education.

By the year 2030, projections indicate that most jobs will require some training beyond high school. Training could include a traditional 4-year degree, a 2-year associate's, or an industry credential. Initiated by the Texas Higher Education Coordinating Board, the 60x30TX Plan is designed to ensure that a competitive and prosperous future is available for students seeking to better their lives and the lives of their families. The state has adopted 60x30TX as a collective goal.

## 60X30TX Goals

The four goals in the 60x30TX Plan are essential to the future prosperity of Texas. 

-  **THE OVERARCHING GOAL: 60x30**  
At least 60 percent of Texans ages 25-34 will have a certificate or degree.  
■ *Supports the economic future of the state*
-  **THE SECOND GOAL: COMPLETION**  
At least 550,000 students in 2030 will complete a certificate, associate, bachelor's, or master's from an institution of higher education in Texas.  
■ *Requires large increases among targeted groups*
-  **THE THIRD GOAL: MARKETABLE SKILLS**  
All graduates from Texas public institutions of higher education will have completed programs with identified marketable skills.  
■ *Emphasizes the value of higher education in the workforce*
-  **THE FOURTH GOAL: STUDENT DEBT**  
Undergraduate student loan debt will not exceed 60 percent of first-year wages for graduates of Texas public institutions.  
■ *Helps students graduate with manageable debt*

THECB supports achievement of the 60x30TX goals by analyzing policy and resources and providing assistance to institutions and organizations that work directly with students. Four priority strategies are highlighted in THECB's annual report:

1. Improve academic preparation for students to enter and complete higher education.
2. Promote college enrollment and completion to students and parents before high school graduation.
3. Support completion by improving the ability of students to transfer credits.
4. Mobilize education and workforce stakeholders to achieve the goals of 60x30TX.

In support of the goals of 60x30TX, THECB implemented regional targets for each of the 10 statewide higher education regions. The goal of these regional targets is to build regional infrastructure and programs with secondary districts and workforce partners. THECB provided data on student outcomes, coaching and guidance, and supportive webinars and onsite conferences. Updates on initiative outcomes and development of best practices will continue through 2020.

THECB additionally supports the goals of 60x30TX with the following THECB resources for students and parents:

- College for All Texans: A portal for students and parents seeking information about going to college. It contains information such as what students need to do to prepare for college and financial aid available to Texas students

- Grad TX: a program designed to help adults return to college and finish their bachelor's degrees
- GenTX: Guidance on the steps students need to follow to enter college and career education, from taking the right classes and tests, to applying to colleges, and then finding the money to pay for school
- Texas CREWS: Allows users to compare wages related to various degree programs/training and career choices with the wages earned by former graduates in those fields

These 60x30TX publications further support the 60x30TX strategic plan:

- 60x30TX & Internship Programs is a toolkit for businesses and employers for integrating the goals and targets of 60x30TX into employer internship programs
- Career Readiness Guide, prepared jointly with the Texas Workforce Commission, provides guidance on preparing for a career while still in college

The vision of the Texas Education Agency's division of College, Career and Military Preparation (CCMP) aligns Texas's education goals with its diverse industry needs and opportunities; ensuring that all Texas high school students have access to high-quality pathways to career and college and that 65% of Texas public high school students enroll directly into postsecondary by 2030.

The mission of the CCMP Division at TEA is to collaborate with institutions of higher education and workforce partners to build pathways for student success; providing best practices to support students through pathways to college, career, and/or the military. The TEA CCMP division believes in creating generational changes for all students. This will be achieved by providing districts with effective evidence-based school models and resources and by identifying and promoting pathways that connect college to career starting in early grades. The theory of action graphic below illustrates this mission and vision.

### Division of College, Career and Military Preparation Division: Theory of Action



To achieve these goals, the TEA partnered with an economist to conduct an analysis of high wage, high-skill, and in-demand occupations across the state. The work allowed the TEA to establish the 53 statewide programs of study which prepare students for occupations that meet Texas labor market criteria including projected job growth, annual job openings, and the state median wage. A list of the 53 statewide programs of study can be found in appendix XX. Texas supports all students, including special populations, with multiple workforce development strategies. Texas will provide career exploration activities and resources that are free of bias and incorporate Universal Design for Learning, comprehensive career development for academic counseling and career guidance that includes assistive technology, office of disability services information, and ADA/Section 504 requirements, equitable access to quality work-based learning opportunities and career development. Texas will provide information on nontraditional occupations in high-wage, high-skill, and in-demand fields.

Throughout the great state of Texas, companies and their workforce have boundless opportunities for success. Texas specializes in its own unique array of advanced industries such as Advanced Tech &

Manufacturing, Aerospace, Aviation & Defense, Biotechnology & Life Sciences, Energy, Information & Computer Technology and Petroleum Refining & Chemical Products.

**c. Describe the State’s strategy for any joint planning, alignment, coordination, and leveraging of funds between the State’s career and technical education programs and programs of study with the State’s workforce development system, to achieve the strategic vision and goals described in section 122(d)(2) of Perkins V, including the core programs defined in section 3 of the Workforce Innovation and Opportunity Act (29 U.S.C. 3102) and the elements related to system alignment under section 102(b)(2)(B) of such Act (29 U.S.C. 3112(b)(2)(B)); and for programs carried out under this title with other Federal programs, which may include programs funded under the Elementary and Secondary Education Act of 1965 and the Higher Education Act of 1965. (Section 122(d)(3) of Perkins V)**

Texas utilizes the Tri-Agency partnership to leverage funding across programs to support the goals of 60x30TX and the state’s strategic plan. The table below lists the different programs in which funding is utilized.

Agency	Initiative	State or Federal	Source of Funding
Texas Education Agency	Career and Technical Education	Federal	Perkins V
	College and Career Readiness School Models (Early College High Schools, Pathways in Technology Early College High Schools, and Texas STEM Academies)	State	Article III Rider 48; Article III Rider 47
	Texas Regional Pathways Network	Federal	Perkins V Reserve Grant Funding
	Systems of Great Schools	State	Article III Rider 41; Article III Rider 44
	Math Innovation Zones	State	Article III Rider 41
	Grow Your Own Initiatives	State	Article III Rider 41
	Beyond Grad	Federal	GEAR UP
	College and Career Readiness Outcomes Bonus	State	House Bill 3, 86th Legislative Session
	College Preparation Exam Reimbursement	State	House Bill 3, 86th Legislative Session
	Industry-Based Certification Exam Reimbursement	State	House Bill 3, 86th Legislative Session
Agency	Initiative	State or Federal	Source of Funds
Texas Higher Education Coordinating Board	Career and Technical Education	Federal, State	Perkins V, ongoing state formula funding
	Texas Affordable Baccalaureate Program	State	Legislative appropriation
	Work Study Mentorship	State	Legislative appropriation
	Perkins Leadership Grants	Federal	Perkins V
	Texas Regional Alignment Network (TXRAN)	State	Legislative appropriation
	Advise Texas	State	Legislative appropriation

Agency	Initiative	State or Federal	Source of Funding
Texas Workforce Commission	WIOA Eligible Trainer Provider System	Federal	WIOA
	Jobs for Education for Texans Grant (JET)	State	Texas Education Code, Ch. 134
	Skills Development Fund	State	Labor Code, Ch. 303
	Registered Apprenticeships	State	Texas Education Code, Ch. 133
	Local Workforce Development Board Workforce Specialists	Federal	TANF
	Internship Challenge	State	State General Revenue
	Texas Talent Connection Grants	Federal	Wagner-Peyser 7(b)

**d. Describe how the eligible agency will use State leadership funds made available under section 112(a)(2) of Perkins V for each of the purposes under section 124(a) of the Act. See Text Box 2 for the required uses of State leadership funds under section 124(a) of Perkins V. (Section 122(d)(7) of Perkins V)**

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
Non-TRADITIONAL FIELDS in current & emerging professions	<ul style="list-style-type: none"> <li>-Equity Association Membership and Equity Training scheduled for College, Career and Military Preparation staff and Education Service Center CTE staff; (Secondary)</li> <li>-Work-based learning resources, toolkit and training for all student populations(Secondary)</li> <li>-The CTE nontraditional and special populations recruitment contract provides services, activities, and professional development that address the promotion and understanding of non-traditional fields and employment activities for nontraditional students as well as address equity in access. (Secondary)</li> <li>- Study of best practices for nontraditional recruitment and success with development of field resources.(Postsecondary)</li> <li>-Study of best practices for special populations success with development of field resources (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Equity Association Membership (Secondary)</li> <li>-Work-based learning resources, toolkit and training for all student populations (Secondary)</li> <li>-training for ESC CTE staff and CTE district administrators on addressing equity gaps in their CTE data (Secondary)</li> <li>-Nontraditional success projects (Postsecondary)</li> <li>-Special populations success projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Equity Association Membership (Secondary)</li> <li>-Work-based learning resources, toolkit and training for all student populations (Secondary)</li> <li>-integration of GIS data to research equity in access to high wage, in-demand occupations in regions of the state (Secondary)</li> <li>-Nontraditional success projects (Postsecondary)</li> <li>-Special populations success projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Equity Association Membership (Secondary)</li> <li>-Work-based learning resources, toolkit and training for all student populations (Secondary)</li> <li>-middle school curriculum on career exploration focusing on recruitment of non-trad and special populations (Secondary)</li> <li>-Nontraditional success projects (Postsecondary)</li> <li>-Special populations success projects (Postsecondary)</li> </ul>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
<p>Exposure of Students to high-skill, high-wage and in-demand occupations</p>	<ul style="list-style-type: none"> <li>-Programs of Study Regional Applications (Secondary)</li> <li>-The TEA to contract with economist to provide support for labor market information. (Secondary)</li> <li>-The regional labor market dashboards will provide LMI data related to high-skill, high-wage and in-demand occupations (Secondary)</li> <li>-Programs of Study Implementation Training Session (recorded webinar) (Secondary)</li> <li>-Comprehensive Local Needs Assessment Training Session (recorded webinar) (Secondary)</li> <li>-Labor Market Information training (in collaboration with Texas Workforce Commission) (Secondary)</li> <li>-Career and Technical Student Organization grant contributes to meeting this goal (Secondary)</li> <li>-Presentations and participation with Industry professional organizations to foster collaboration (braiding) of industry and education to deliver a skilled talent pool (Secondary)</li> <li>-Industry-based certification 1-page documents help students understand the experience and certifications needed for specific occupations (Secondary)</li> <li>-Pilot for Virtual Work Based Learning Opportunities (Secondary)</li> <li>- Projects to improve credential completion; improve career guidance, academic support, and counseling programs; develop competency-based education (CBE) curricula; develop public/private rural nursing education consortium; and embed workplace success skills into career and technical education curricula (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>- POS Regional Applications (Secondary)</li> <li>-Implementation of middle school curriculum on college and career preparation; exposing students to occupations in high wage, in-demand occupations (Secondary)</li> <li>-Implementation of Advisor training, to build counselor and advisor capacity in career exploration aligned to high-skill, high-wage and in-demand occupations (Secondary)</li> <li>- postsecondary student success, programs of study, and essential workplace skills projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>- POS Regional Applications (Secondary)</li> <li>-Implementation of online access to career exploration tools and employer outreach (Secondary)</li> <li>-Implementation of Effective Advising Framework, designed to strengthen local advising programs and build capacity to guide students through career exploration aligned to high-skill, high-wage and in-demand occupations (Secondary)</li> <li>- postsecondary student success, programs of study, and essential workplace skills projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>- POS Regional Applications (Secondary)</li> <li>-Implementation of work-based learning continuum in early and middle grades (Secondary)</li> <li>- postsecondary student success, programs of study, and essential workplace skills projects (Postsecondary)</li> </ul>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
<p>Technical assistance to Local Education Agencies</p>	<ul style="list-style-type: none"> <li>-Labor Market Information Data Curation &amp; Technical Assistance for Regional POS (Secondary)</li> <li>-Texas CTE Resource Center provides a wealth of helpful, refreshed instructional materials and professional development content. (Secondary)</li> <li>-IBC One page resource documents (Secondary)</li> <li>-POS Framework Documents updated annually (or biannual) (Secondary)</li> <li>-POS Justification Documents (Secondary)</li> <li>-POS Parent/Student Documents</li> <li>-POS Implementation Toolkit</li> <li>-Advisory Board Toolkit (Secondary)</li> <li>-Beyond Grad (counseling support work) (Secondary)</li> <li>-Postsecondary Prep Programs convenings (training) (Secondary)</li> <li>-Development of STEM framework, pilot, and administrator training. STEM modules will be created, and ESC staff trained on effective STEM implementation. (Secondary)</li> <li>-Work Based Learning training for intermediaries and CCRSM designees</li> <li>-Develop a pilot program for regional intermediaries (Secondary)</li> <li>- Technical assistance provided to CCRSM designees on blueprint implementation, including pathways, course crosswalks, work based learning, business partnerships, IHE partnerships and LMI data. (Secondary)</li> <li>-Launch of Effective Advising Framework (Secondary)</li> <li>-The CTE Administrator Professional Development will provide professional development for CTE administrators. This includes module creation for new CTE administrators as well as professional development sessions for experienced CTE administrators. (Secondary)</li> <li>--Landscape analysis of current CTE Administrator offerings and projected needs. (Secondary)</li> </ul>	<ul style="list-style-type: none"> <li>-LMI Data Curation &amp; Technical Assistance for Regional POS (Secondary)</li> <li>-Districts will receive professional development and technical assistance as a part of the STEM pilot. (Secondary)</li> <li>-Additional WBL training related to student and employer insurance (Secondary)</li> <li>-CCRSM designee training for new campuses and leadership teams to account for turn over (Secondary)</li> <li>-Continuation of CCRSM technical assistance for designees (Secondary)</li> <li>-Training and fidelity of implementation monitoring for middle school curriculum implementation (Secondary)</li> </ul>	<ul style="list-style-type: none"> <li>-LMI Data Curation &amp; Technical Assistance for Regional POS (Secondary)</li> <li>-Districts will receive professional development and technical assistance as a part of the STEM pilot. (Secondary)</li> <li>-Training for WBL data collection system (Secondary)</li> <li>-CCRSM designee training for new campuses and leadership teams to account for turn over (Secondary)</li> <li>-Continuation of CCRSM technical assistance for designees (Secondary)</li> <li>- Training and fidelity of implementation monitoring for Effective Advising Framework implementation (Secondary)</li> </ul>	<ul style="list-style-type: none"> <li>-LMI Data Curation &amp; Technical Assistance for Regional POS (Secondary)</li> <li>-Training for WBL data collection system (Secondary)</li> <li>-CCRSM designee training for new campuses and leadership teams to account for turn over (Secondary)</li> <li>-Continuation of CCRSM technical assistance for designees (Secondary)</li> </ul>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
<p>Technical assistance to Local Education Agencies</p>	<ul style="list-style-type: none"> <li>-Development of training modules to be delivered regionally in six to ten statewide regions. (Secondary)</li> <li>-Train the Trainer (TOT) sessions conducted. (Secondary)</li> <li>-Update existing CTE 101 online course (Secondary)</li> <li>-Develop CTE Administrator Guidebook (reference for CTE Administrators) (Secondary)</li>   <li>- Award contract for CTE teacher professional development (Secondary)</li>   <li>-The CTE Teacher Professional Development will provide professional development for CTE teachers, both new and experienced with a focus on student achievement. (Secondary)</li>   <li>-Landscape analysis of current CTE teacher training offerings and projected needs (Secondary)</li>   <li>-Reviews CTE Support Personnel Professional Development (Secondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Training Modules Implementation (Secondary)</li> <li>-Evaluation, review, and revision of existing training module (update and add new modules as needed) (Secondary)</li> <li>-Roll out CTE 101 course for CTE administrators (Secondary)</li> <li>-Review contact deliverables and make changes as necessary (Secondary)</li> <li>-Develop a coaching style follow up process to evaluate individualized results of training and provide support as needed. (Secondary)</li> <li>-Develop RFP for CTE support personnel PD (Secondary)</li> <li>Work in partnership with Special Education associations to develop guidance and tools for ensuring equitable access to Career and Technical Education (Secondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Training Modules Implementation for Administrators (S)</li> <li>-Evaluation, review, and revision of existing training modules (S)</li> <li>-Review contact deliverables and make changes as necessary (S)</li> <li>-Implement coaching style follow up process to evaluate individualized results of training and provide support as needed for teacher training (S)</li> <li>-Training Modules Implementation for teachers and counselors (S)</li> <li>-Award contract for CTE support personnel (S)</li> <li>-Development of training modules to be delivered regionally (six to ten statewide regions) (S)</li> <li>-Train the Trainer (TOT) sessions delivered (S)</li> <li>-Continued support and guidance for tools related to equitable access (S)</li> </ul>	<ul style="list-style-type: none"> <li>-Training Modules Implementation (S)</li> <li>-Evaluation, review, and revision of existing training modules (S)</li> <li>-Review and award contract deliverables and make changes as necessary (S)</li> <li>-Implement coaching style follow up process to evaluate individualized results of training and provide support as needed. (S)</li> <li>-Training Modules Implementation (S)</li> <li>-Training Modules Implementation (S)</li> <li>-Review and award contract deliverables and make changes as necessary (S)</li> <li>-Training Modules Implementation (S)</li> <li>-Evaluation, review, and revision of existing training modules content (S)</li> <li>Continued support and guidance for tools related to equitable access (S)</li> </ul>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
<p>Recruiting, preparing or retaining CTE Teachers</p>	<ul style="list-style-type: none"> <li>-Revision of CTE teacher certifications to align with POS and to reduce barriers to entry for industry professionals and to balance entry requirements with quality measures. (Secondary)</li> <li>-Streamlined T&amp;I certification requirements to reduce barriers to entry for industry professionals (Secondary)</li> <li>-CTE teacher technical assistance will provide services, activities, and professional development for CTE teachers that will allow all Texas LEAs to deliver quality CTE programs. (Secondary)</li> <li>-Grow Your Own grants awarded to applicants to design solutions for recruiting and retaining teachers (Secondary)</li> <li>-Grants for P-TECH priority points for Education and Training programs within the Grow your Own grants (Secondary)</li> <li>- Professional development projects in postsecondary advising, CTE pedagogies and modes of delivery; student equity; and other statewide professional development projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>As data is collected from PD RFP, restructure new teacher induction programs (Secondary)</li> <li>-Release resources on teacher externships in partnership with TWC (Secondary)</li> <li>-Professional development projects in postsecondary advising, CTE pedagogies and modes of delivery; student equity; and other statewide professional development projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>Extend supports and mentorship opportunities throughout the first year for new teachers and provide a continuum of supports for veteran teachers. (Secondary)</li> <li>-Professional development projects in postsecondary advising, CTE pedagogies and modes of delivery; student equity; and other statewide professional development projects (Postsecondary)</li> </ul>	<ul style="list-style-type: none"> <li>-Professional development projects in postsecondary advising, CTE pedagogies and modes of delivery; student equity; and other statewide professional development projects (Postsecondary)</li> </ul>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
Career and Technical Student Organizations	<p>--CTSO Leadership Grant provides funding to plan and carry out elements that support the implementation of career and technical education programs and programs of study. (Secondary)</p> <p>-State CTE leadership serve on Board of Directors of CTSOs and communicate State CTE vision and mission via updates (Secondary)</p> <p>-State CTE staff will facilitate a Landscape Analysis for CTSO State performance measurements (Secondary)</p>	<p>--CTSO Leadership Grant provides funding to plan and carry out elements that support the implementation of career and technical education programs and programs of study. (Secondary)</p> <p>-State CTE leadership serve on Board of Directors of CTSOs and communicate State CTE vision and mission via updates (Secondary)</p> <p>- Evaluation, review, and revision of existing training module content (Secondary)</p>	<p>--CTSO Leadership Grant provides funding to plan and carry out elements that support the implementation of career and technical education programs and programs of study. (Secondary)</p> <p>-State CTE leadership serve on Board of Directors of CTSOs and communicate State CTE vision and mission via updates (Secondary)</p> <p>- Evaluation, review, and revision of existing training module content (Secondary)</p>	<p>--CTSO Leadership Grant provides funding to plan and carry out elements that support the implementation of career and technical education programs and programs of study. (Secondary)</p> <p>-State CTE leadership serve on Board of Directors of CTSOs and communicate State CTE vision and mission via updates to new board members (Secondary)</p> <p>- Evaluation, review, and revision of existing training module content (Secondary)</p>

LEADERSHIP FUNDING SUPPORTS	2020-2021 (YEAR 1)	2021-2022 (YEAR 2)	2022-2023 (YEAR 3)	2023-2024 (YEAR 4)
Education Service Centers	<p>-Education Service Center (ESC) Grant funds an ESC CTE specialist who provides technical assistance to LEAs. Technical assistance is provided through training, resource sharing and providing just in time communication to all LEA's. (Secondary)</p> <p>-ESC CTE staff will participate in equity training to provide depth of knowledge for technical assistance provided to LEAs (Secondary)</p> <p>-Quarterly report from the Texas Workforce Commission provides career and technical education partnership opportunities with business and industry, and Professional development opportunities for teachers and learning opportunities for students through industry mentorships, internships, summer programs, after-school programs, and career-based student leadership opportunities. (Secondary)</p>	<p>-ESC CTE staff will participate in the roll out of CTE Teacher and Administrator professional development (Secondary)</p> <p>-ESC CTE staff will participate in the review of the Comprehensive Local Needs Assessment for schools within their region (Secondary)</p>	<p>-ESC CTE staff will participate in the roll out of CTE Teacher and Administrator professional development (Secondary)</p>	<p>-ESC CTE staff will participate in the roll out of CTE Teacher and Administrator professional development (Secondary)</p> <p>-ESC CTE staff will participate in the review of the Comprehensive Local Needs Assessment for schools within their region (Secondary)</p>
State Institution Support	<p>-Funding provided to the following institutions:</p> <p>Windham LEA</p> <p>Texas School for the Deaf</p> <p>Texas School for the Blind and Visually Impaired</p> <p>Texas Juvenile Justice System</p> <p>Boys Ranch ISD</p> <p>Southwest College for the Deaf (Postsecondary)</p>	<p>-Funding provided to the following institutions:</p> <p>Windham School District</p> <p>Texas School for the Deaf Texas School for the Blind and Visually Impaired</p> <p>Texas Juvenile Justice System</p> <p>Boys Ranch ISD</p> <p>Southwest College for the Deaf (Postsecondary)</p>	<p>-Funding provided to the following institutions:</p> <p>Windham School District</p> <p>Texas School for the Deaf Texas School for the Blind and Visually Impaired</p> <p>Texas Juvenile Justice System</p> <p>Boys Ranch ISD</p> <p>Southwest College for the Deaf (Postsecondary)</p>	<p>-Funding provided to the following institutions:</p> <p>Windham School District</p> <p>Texas School for the Deaf Texas School for the Blind and Visually Impaired</p> <p>Texas Juvenile Justice System</p> <p>Boys Ranch ISD</p> <p>Southwest College for the Deaf (Postsecondary)</p>

## 2. Implementing Career and Technical Education Programs and Programs of Study

### a. Describe the career and technical education programs or programs of study that will be supported, developed, or improved at the State level, including descriptions of the programs of study to be developed at the State level and made available for adoption by eligible recipients. (Section 122(d)(4) (A) of Perkins V)

The TEA engaged members of the workforce, secondary education, and higher education to advise on the development of programs of study, including coherent sequences of courses, industry-based certifications, and work-based learning to ensure students are prepared for high-wage, high-skill and in-demand careers in Texas.

The TEA conducted a process to identify high wage, high-skill and in-demand occupations in Texas to ensure alignment between industry and postsecondary education. The process included stakeholders from the Texas Workforce Commission, Texas Workforce Investment Council, Texas Higher Education Coordinating Board, LEA teachers and administrators, and industry representatives.

These groups comprised the industry advisory committees for each career cluster. The course sequencing methodology backwards-mapped occupations from job knowledge and skill demand, through postsecondary preparation (college, trade schools, certifications, etc.), to secondary education and triangulated data sources for the best results of labor projections alongside real-time labor data.

**Phase I:** Foundation occupations were identified utilizing a median growth rate of 17%, a median annual salary of \$35,339, and a minimum annual openings floor of 500, each based on the data from all occupations in Texas. Occupations that were related to the foundation occupations were identified to form groupings of occupations and initial focus for programs of study.

**Phase II:** Groupings of occupations were formed based upon: similarities in detailed work activities; directly or closely related postsecondary training and education programs; or directly or closely related through standard occupational classification by ONET. These groupings of occupations were compared to the median data of all occupations in Texas. Data sources include Emsi data (real-time labor market information) labor projections, Texas Workforce Commission data, Local Workforce Boards Targeted Occupations, and the Bureau of Labor Statistics.

Frameworks have been developed for each of the 53 statewide approved programs of study.

Courses are made available by level for local education agencies to select sequences. The courses were determined by the industry advisory committees and finalized after a sixty-day public comment period to elicit feedback from all stakeholders.

Postsecondary options for students are listed under the categories of industry-based certification obtainable by a high school student, professional certificate or license, associate degree, bachelor's degree, and postgraduate degree. Occupations included in the formation of the program of study are listed including their median annual wage in Texas in 2017, their projected annual openings in Texas from 2018- 2028, and their projected growth in Texas from 2018-2028. Descriptions are included for the career cluster and program of study, and the graduation endorsement which may be obtained by a student completing a course sequence within the program of study.



## COURSES

### LEVEL 1

Principles of Education and Training  
Principles of Human Services

### LEVEL 2

Human Growth and Development  
Child Development  
Communication and Technology in Education (TBD)

### LEVEL 3

Instructional Practices  
Special Populations (TBD)

### LEVEL 4

Practicum in Education and Training  
Project Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Educational Aide I	Texas Educator Certification Program	Teacher Education	Bilingual and Multilingual Education	Instruction and Learning
	Educational Instructional Technology	Education, General (or specific subject area)		Educational Leadership and Administration, General
	Counselor, Professional	Special Education		
	Athletic Trainer	Health and Physical Education/Fitness	Social and Philosophical Foundations of Education	
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/ Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Texas Association of Future Educators, or Family, Career and Community Leaders of America

**Work Based Learning Activities:**  
Teach a community education class; intern as a teaching assistant or tutor; serve as a camp counselor.

The Teaching and Training program of study prepares students for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE concentrators to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.



The Education and Training Career Cluster® focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster.

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



# COURSE INFORMATION

COURSE NAME	SERVICE ID	PREREQUISITES (PREQ) COREQUISITES (CREQ)	GRADE
Principles of Education and Training	13014200 (1 credit)	None	9-10
Principles of Human Services	13024200 (1 credit)	None	9-12
Human Growth and Development	13014300 (1 credit)	None	10-12
Child Development	13024700 (1 credit)	None	10-12
Communication and Technology in Education	TBD	TBD	TBD
Instructional Practices	13014400 (2 credits)	None	11-12
Special Populations	TBD	TBD	TBD
Practicum in Education and Training	13014500 (2 credits) 13014505 (3 credits) 13014510 (2 credits) 13014515 (3 credits)	PREQ: Instructional Practices	12
Project Based Research	12701500 (1 credit)	None	11-12
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	11-12

**FOR ADDITIONAL INFORMATION ON THE EDUCATION AND TRAINING CAREER CLUSTER, PLEASE CONTACT:**

Debbie Wieland | [Debbie.Wieland@tea.texas.gov](mailto:Debbie.Wieland@tea.texas.gov)

<https://tea.texas.gov/cte>

Local education agencies will notify the TEA of the statewide programs of study which they offer through their local application. Additionally, LEAs will have the opportunity to apply annually for a regional program of study as outlined in section B2.b.

Frameworks for programs of study within each career cluster are linked via their respective icons below.



Program of Study Frameworks can be found in TEA Appendix 4.

### Industry-Based Certifications

Industry-based certifications have been aligned to programs of study. Informational documents are available for each of the 244 industry-based certifications on the Texas school accountability list. Information includes competencies of the certification, exam requirements, and contact information for the certifying entities. To develop this list, TEA requested feedback from stakeholders across Texas on recommendations for additions to the previous state-approved list of 73 industry-based certifications.

TEA received over 4,000 responses containing 1,319 unique credentials. The recommended credentials were sent to the 28 Texas Workforce Development Board employers to determine industry value and approximately 1,000 industry representatives responded to the survey.

All submitted credentials were reviewed for the evaluation criteria for industry-based certifications including: 1) industry valued, 2) 3rd party provider, 3) capstone, 4) attainable by a high school student, and 5) portable.

A public comment period was held from January 4 through February 15, 2019. Over 2,100 comments were received and reviewed. The final list of 244 certifications was released on March 28, 2019.

Resources for each industry-based certification can be found at the following link: [\*\*TEA CTE Webpage\*\*](#)

Perkins funds can be used to support statewide or approved regional programs of study at the secondary and postsecondary level. Current CTE courses not included in the statewide or approved regional programs of study will remain available for districts to offer and can be supported with State CTE funds.

Texas House Bill 2628, passed in 2015, requires the Texas Higher Education Coordinating Board (THECB) to establish programs of study that:

1. incorporate rigorous college and career readiness standards, including career and technical education standards that address both academic and technical content;
2. support attainment of employability and career readiness skills;
3. progress in content specificity by beginning with all aspects of an industry or career cluster and leading to more occupationally specific instruction or by preparing students for ongoing postsecondary career preparation;
4. incorporate multiple entry and exit points with portable demonstrations of technical or career competency, which may include credit transfer agreements or industry-recognized certifications; and
5. culminate in the attainment of:
  - an industry-recognized certification, credential, or license;
  - a registered apprenticeship or credit-bearing postsecondary certificate; or
  - an associate or baccalaureate degree.

THECB develops statewide postsecondary programs of study through the formation of advisory committees composed of representatives of secondary education, postsecondary education, business and industry, other state agencies or licensing bodies, and other career and technical education experts. Program of study advisory committees are charged with (1) identifying high-demand programs of study within the cluster, (2) establishing subcommittees as needed to identify courses and learning outcomes required as part of a program of study (POS), and (3) providing THECB staff with feedback about processes and procedures related to the programs of study within the relevant cluster.

Programs of study developed under House Bill 2628 must:

1. focus on the current and future needs of employers in this state;
2. clearly define career pathways with logical entry and exit points for students;
3. indicate the types of careers and the names of certifications or licenses aligned to the program of study;
4. provide for students who begin a program of study at a public junior college, public state college, or public technical institute to transfer to another public junior college, public state college, or public technical institute without having to repeat classes or incur significant interruption of their ability to progress through the program of study;
5. be designed to meet the needs of business and industry with a high degree of commonality across the state;
6. align with the college and career readiness standards; and
7. be revised on a reoccurring schedule, not to exceed once every five years, to ensure the programs of study remain current and relevant to the needs of business and industry.

Using the advisory committee process described above, THECB has developed and approved the following statewide programs of study for adoption by postsecondary institutions:

- Architecture and Construction
  1. Building Construction Management
  2. General Drafting
  3. Architectural Drafting
  4. Electrical Lineworker
  5. Electrical, Industrial
  6. Electrical, Residential & Commercial
  7. Heating, Air Conditioning, and Ventilation
  8. Plumbing
  9. Pipefitting
- Health Science
  1. Occupational Therapy Assistant
  2. Physical Therapist Assistant
  3. Emergency Medical Services/Paramedic
  4. Dental Hygiene
  5. Radiologic Technology
  6. Respiratory Care
- Information Technology
  1. Cloud Computing
  2. Cloud Support and Cybersecurity
  3. Cloud Computing Data Science
  4. Cloud Computing Data Analysis

Consistent with statewide stakeholder input and the updated Texas Workforce System Strategic Plan for FY 2020-2023, THECB will seek through the Tri-Agency Partnership and the Texas Workforce Investment Council to (1) align more closely the curricula of secondary and postsecondary programs of study and (2) support incorporation of third-party, industry-based certifications into program content and training outcomes

Actions to align secondary and postsecondary curricula will include the following:

- Coordination with TEA to ensure alignment of secondary and postsecondary programs of study;
- Providing postsecondary institutions access to a coordinated, non-duplicative sequence of secondary and postsecondary academic and career and technical education courses to help students transition seamlessly from high school to a public community, state, or technical college;
- Expanding and supporting adoption of a common group of Workforce Education Course Manual (WECM) courses per discipline and will align WECM courses to postsecondary programs of study and

secondary/postsecondary pathways for career and technical education; and

- Working to facilitate consistent credit transfer from secondary to postsecondary education by working with TEA to develop policies, procedures, and rules to support consistent transfer.
- Actions to support the incorporation of third-party, industry-based certifications will include the following:
  - Engaging industry representatives to collaborate with postsecondary institutions in new program development that incorporates national industry-based certifications;
  - Convening of discipline-specific statewide advisory groups to provide up-to-date input concerning, skills, certifications, and licenses required by business and industry in order to align career and technical education programs and courses; and
- Identification and implementation of relevant industry-based certifications and licenses and incorporation of occupational information into statewide career and technical education programs of study.

**b. Describe the process and criteria to be used for approving locally developed programs of study or career pathways (see Text Box 3 for the statutory definition of career pathways under section 3(8) of Perkins V), including how such programs address State workforce development and education needs and the criteria to assess the extent to which the local application under section 1327 will—**

LEAs are required to utilize local labor market data, CTE advisory boards, and other stakeholders to determine which statewide programs of study best fit their needs. Each statewide program of study includes course sequences which provide increased content specificity as students move through program completion and allows for multiple education and workforce entry and exit points. By determining local workforce needs, an LEA may match those needs to the program(s) of study which meet their local data.

Each year, local education agencies may apply for programs of study with labor market data to support regional programs of study. This application process, referred to as the regional program of study approval process, will require the submission of labor market data that validates the occupations and course sequence of the proposed program of study being aligned with regional needs for high-wage, high-skill, and in-demand careers.

**Phase I:** Local education agencies notify the career and technical education specialist in their Educational Service Center (ESC) of their intent to apply for a regional program of study. Information is collected on intended regional programs of study title and course sequence. ESC staff consolidate like submissions and designate a lead LEA.

**Phase II:** TEA reviews letters of intent from each ESC. Course sequences that are duplicative of a statewide program of study or a one course substitution in a statewide program of study will not be approved as a regional program of study.

**Phase III:** Remaining regional program of study applications are taken through labor market data analysis by the TEA staff. Labor market information is curated for each LEA and provided with the regional program of study application to the LEA.

**Phase IV:** LEAs work with their local advisory board and workforce development entities to complete the application. The application

**Phase V:** The TEA approves or denies regional programs of study applications.

THECB requires colleges submitting postsecondary CTE programs for approval to follow the requirements of THECB's Guidelines for Instructional Programs in Workforce Education (GIPWE). GIPWE requires that colleges develop proposed programs in close cooperation with business and industry to satisfy a need for timely and effective workforce education. Business and industry experts must provide substantial input into the curriculum design of a proposed CTE program, including profession-specific knowledge, skills, and abilities and general skills as appropriate, such as oral and written communication, mathematics, computer literacy, and industry-related workplace practices.

All proposed postsecondary CTE programs submitted for THECB approval must contain the following common elements:

- Using national, state, and local industry-based trends, standards, and labor market information, the institution must document pertinent local, regional, and/or statewide workforce demand for the program.
- Institutions must demonstrate that the proposed award provides the necessary academic skills and the workforce skills, knowledge, and abilities necessary to attain entry-level employment in a target occupation. THECB encourages institutions to develop or adopt Texas skill standards-based curricula and other statewide CTE initiatives developed collaboratively with business and industry. Alternatively, the program competencies must be developed and documented using a Program Competency Profile, a Detailed Work Activity (DWA) curriculum alignment process, the DACUM (Developing A CurriculUM) process, or another systematic methodology approved by the institution.
- The final proposed program curriculum must adequately address all identified competencies, and the program's courses must ensure that students have the opportunity to master the competencies. The program's industry advisory committee must take an active role in identifying program competencies and validate the curriculum's capacity to instill the competencies.
- To verify entry-level workplace competencies, the institution must provide at least one of the following for each proposed CTE award: a) capstone experience, b) eligibility for a credentialing exam, and/or c) an external learning experience. The experience should occur during the last semester of the student's educational program.
- The institution must design a program-specific enrollment management plan demonstrating that the proposed new program will have sufficient enrollment to support the program.
- Programs must be designed to permit maximum access for students by establishing linkages with other programs in public secondary schools and/or other institutions of higher education, as well as non-duplication with similar programs within the higher education region and/or service area. Linkages may be demonstrated by articulation agreements that provide for student transfer, inverted degree plans, and advanced standing opportunities.
- The institution must detail the initial resources needed for the program, including existing and additional faculty, facilities, equipment, and an estimate of annual operating costs.
- The program design must be consistent with the standards of the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) and with the standards of other applicable accrediting agencies, and must be in compliance with appropriate licensing authority requirements.

THECB's GIPWE requires that colleges establish an industry-based advisory committee for each workforce education program. Advisory committees may be organized by career cluster, provided that each individual program is reviewed, the committee has the necessary expertise, and ample time is allotted for each program. The role of an advisory committee is to 1) help a college document the need for a workforce education program and 2) ensure that the program has adequate resources and a well-designed curriculum to provide students with the knowledge, skills, and abilities essential for employment. The advisory committee is one of the principal means of ensuring meaningful business and industry participation in program creation and revision.

Advisory committees must be composed of persons who broadly represent the demographics, including ethnic and gender diversity, of the institution's service area as well as the occupational field in all sectors of the business community within the institution's service area. Members should be well informed about the knowledge, skills, and abilities required for the occupation for which they are providing information and guidance.

Advisory committees perform the following functions:

1. evaluating the goals and objectives of the program curriculum;

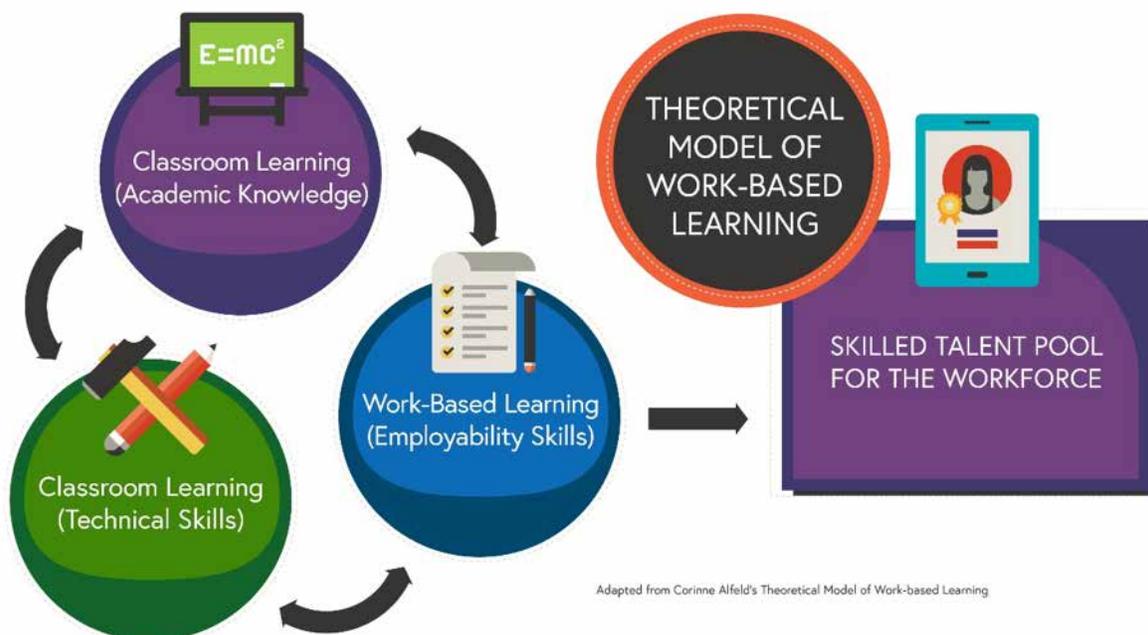
2. establishing workplace competencies for the program occupation(s);
3. suggesting program revisions as needed;
4. evaluating the adequacy of existing college facilities and equipment;
5. advising college personnel on the selection and acquisition of new equipment;
6. identifying local business and industry leaders who will provide students with external learning experiences, employment, and placement opportunities;
7. assisting in the professional development of the faculty;
8. assisting in promoting and publicizing the program to the community and to business and industry; and
9. representing the needs of students from special populations.

In response to statewide stakeholder input, THECB will seek to streamline approval of new CTE programs and updates to the Workforce Education Course Manual to support more rapid institutional response time to changing employer needs, technology updates, and market shifts.

**i. promote continuous improvement in academic achievement and technical skill attainment;**

The Texas programs of study, both statewide and regionally approved at the secondary and postsecondary level, align to occupations which are high-skill, high-wage and in-demand. Students are encouraged to participate in work-based learning and expanded learning opportunities that align with their program focus. The model below shows the relationship between academic knowledge, technical skills and employability skills and how all three types must support one another.

When these components work together, Texas will have a skilled talent pool ready to enter the workforce



**Theoretical Model of Work-Based Learning**

Courses included in an approved program of study include standards which are approved by the State Board of Education (SBOE) or through the Commissioner of Education. The courses included within statewide and regional programs of study will align to occupations which are high-wage, high-skill, and in-demand. Additionally, the course sequence will begin with a foundational course and increase in content specificity. Wherever possible, programs of study should align to an industry-based certification and/or

dual credit from an institution of higher education. To encourage the attainment of industry valued and recognized industry-based certifications, the TEA will reimburse LEAs for one passed certification exam per student taken from 9th-12th grade.

To emphasize technical skill attainment, students are encouraged to take coherent sequences of courses that increase in content specificity. CTE concentrators are students who have completed two or more courses for at least two credits within a program of study. CTE completers are students who have completed three or more courses for four or more credits, with at least one advanced course within a program of study. An advanced course is a course from level three or four.

THECB's GIPWE process for CTE program approval and maintenance, described above, requires the ongoing advisement of industry-based committees in establishing and maintaining postsecondary CTE curricula to promote continuous improvement in student achievement.

**ii. expand access to career and technical education for special populations; and**

The CTE nontraditional and special populations recruitment contract provides services, activities, and professional development that addresses the promotion and understanding of non-traditional fields and employment activities for nontraditional students and address equity in access.

The TEA contracted with an outside entity for a statewide CTE evaluation that will evaluate numbers of CTE participants and CTE concentrators at the career cluster level and will disaggregate the information based on the special population categories. The results of the evaluation showed that CTE students who concentrated in CTE enrolled in postsecondary at a higher rate. In addition, CTE students who concentrated earned higher wages. However, the evaluation did not show a higher persistence rate among CTE concentrators. The TEA will also partner with an external group/consultant to ensure that there is training provided to the TEA staff and education service center CTE specialists. Data will be provided to LEAs so they can best address performance gaps in CTE programming through the Comprehensive Local Needs Assessment.

THECB provided each of the state's 54 public postsecondary institutions with disaggregated special populations performance data as a component of its resources supporting the Comprehensive Local Needs Assessment (CLNA). Data were provided to each institution by cluster or program at the two- or four-digit CIP code level to comply with FERPA. Institutions additionally received question sets and other guidance in consulting special populations stakeholders.

Postsecondary institutions are required utilize Perkins formula funds to address performance gaps identified in the CLNA as a condition for receiving a formula grant. THECB monitors disaggregated performance results at the program level for each public two-year community, state, and technical college receiving Perkins funds.

**iii. support the inclusion of employability skills in programs of study and career pathways.  
(Section 122(d)(4)(B) of Perkins V)**

In an effort to focus on earlier exposure to career exploration, Texas offers middle school CTE courses titled Investigating Careers and College and Career Readiness. In partnership with UT Austin, Texas's Beyond Grad initiative is creating a middle school curriculum designed to expose students to career exploration, college and career readiness knowledge, employability skills, and skills for building personal agency. The middle school curriculum uses TEKS, Texas College & Career Readiness Cross-Disciplinary Standards, and Student Competencies as defined by the Texas Model for Comprehensive School Counseling Programs. This middle school curriculum will be piloted in Texas GEAR UP districts initially, followed by a statewide pilot during the 2020-2021 school year. The final version of the curriculum will be loaded into an online platform freely accessible to educators, students, and families across the state.

Within all courses taught, a fluency in STEM skills is critical to prepare students for career readiness in the workforce. Students are introduced to the STEM fluency skills through learning STEM integrated thinking through content application using engineering design challenges or STEM Project/Problem Based Learning. In grades PK-8 they focus on building the skills of collaboration, creativity, critical thinking, communication, and resilience. By 8th grade these STEM Fluency Skills should be habits and in grades 9 and up, students work to develop and master STEM skills through work focusing on promptness, time management, adaptability and innovation. All CTE courses which are approved by the State Board

of Education (SBOE) include employability skills. Additionally, all course standards will be reviewed by industry professionals. Through this review, standards will be mapped to occupational skills which are assigned a level of criticality. Industry reviewers will also identify skills which are not included in course standards. This will inform future course standards work to ensure courses included in programs of study meet industry needs. Texas is defining Work-Based Learning and created a Work-Based Learning Toolkit to be utilized across grade bands. The Work Based Learning Toolkit, which includes the Employability Skills Rubric, is provided in appendix 5.

THECB's GIPWE process for CTE programs, described in Section B.2.b above, requires the ongoing advisement of industry-based committees to support inclusion of relevant employability skills into CTE programs. THECB utilizes State Leadership funds to support the embedding of employability skills into postsecondary CTE curricula. THECB has developed an internship toolkit for businesses or employers as a strategic plan (60x30TX) resource, as described in Section B.2.c. One purpose of the toolkit is to guide incorporation of employability skills into internships.



**c. Describe how the eligible agency will—**

- i. make information on approved programs of study and career pathways (including career exploration, work-based learning opportunities, early college high schools, and dual or concurrent enrollment program opportunities) and guidance and advisement resources, available to students (and parents, as appropriate), representatives of secondary and postsecondary education, and special populations, and to the extent practicable, provide that information and those resources in a language students, parents, and educators can understand;**

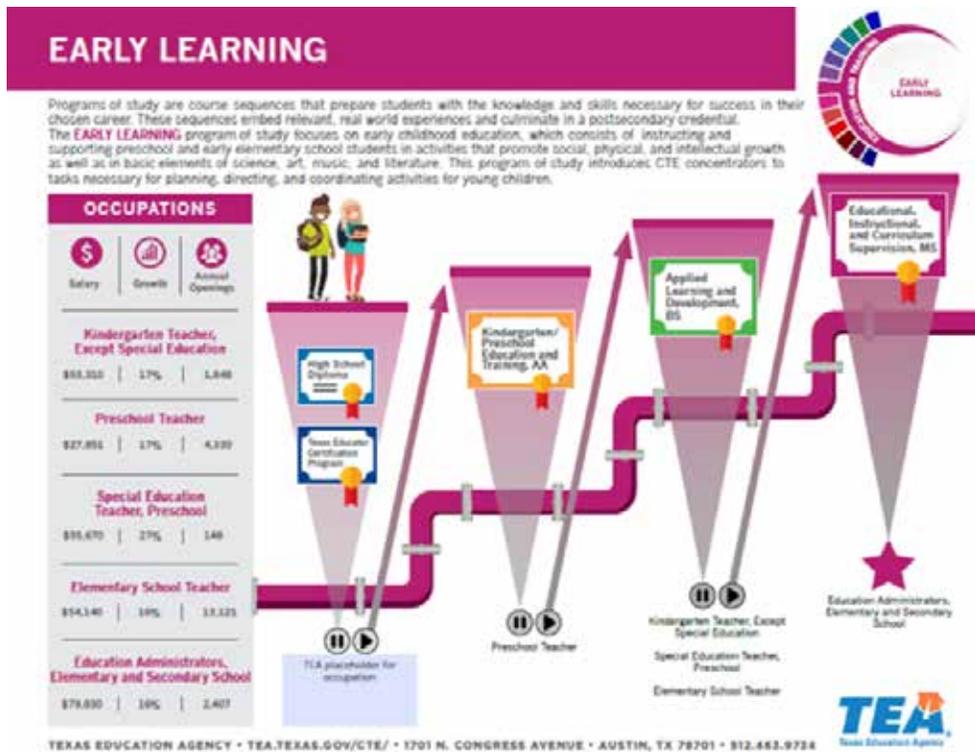
**Programs of Study and Career Pathways**

Framework documents supporting each program of study have been created for use by counselors and administrators. These frameworks include courses by level which may be utilized for a program of study by LEAs. Courses may be assigned to a level different than what is listed on the counselor and administrator framework document, provided that all required course prerequisites are satisfied. The documents also include occupations supported by the course sequence as well as postsecondary options for students, focusing on multiple entry and exit points.

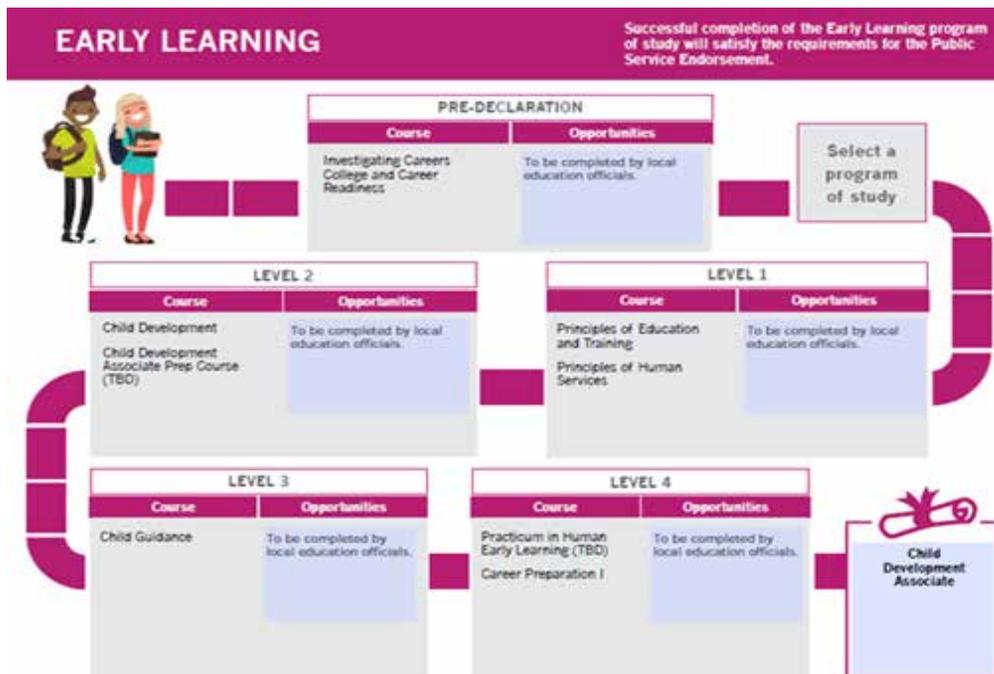
Additionally, justification documents have been created for each career cluster to give further background information on programs of study including heat maps of total employees, new hires, and student enrollment by industry and career cluster. Postsecondary options are listed by training program and institution of higher education per Classification of Institutional Programs, or CIP code as aligned to programs of study. These documents, as well as labor market information provided to local education agencies by the TEA, are beneficial as schools determine the programs of study to best prepare their students for a local and statewide robust economy.

Documents for students and parents will be made available for each program of study. These documents

are a more visual representation of the information included on the counselor and administrator framework documents. Included in this document is a fillable graduation plan that a middle school student may utilize to create a four-year plan for high school with support from a parent or counselor.



**Student and Parent Document pg. 1**



**Student and Parent Document pg. 2**

Hot Jobs one-page resources were created for each local workforce development board. These resources highlight the top five in-demand and high-wage occupations for each area and include information such as programs of study with which they are aligned, typical job responsibilities, whether the occupation is included in several industries or is concentrated in one or few industries, links to videos and ONET providing detailed information on the occupation, and median annual salary, projected ten-year growth, and projected annual openings.

### WORKFORCE SOLUTIONS GULF COAST

Hot Jobs	Program of Study	What Do They Do Everyday?	Who Needs These Types of Workers?
<b>Accountants and Auditors</b> 		<ul style="list-style-type: none"> <li>• Examining accounts and other financial accounting records to prepare financial statements, give advice, or audit and reconcile statements prepared by others.</li> <li>• Install or advise on systems of recording costs or other financial and budgetary data.</li> </ul>	
<b>Computer Systems Analysts</b> 		<ul style="list-style-type: none"> <li>• Provide technical assistance to computer users.</li> <li>• Analyze operations or make computer programs for needs in various areas or departments of an organization.</li> <li>• May provide technical assistance for the use of computer hardware and software, including printing, validation, and processing electronic mail and operating systems.</li> </ul>	
<b>Electricians</b> 		<ul style="list-style-type: none"> <li>• Install, maintain, and repair electrical wiring, electrical and electronic equipment, and systems.</li> <li>• Ensure that work is in accordance with relevant codes.</li> <li>• May install or service street lights, television systems, or electrical control systems.</li> </ul>	
<b>Licensed Practical and Licensed Vocational Nurses (LPN / LVN)</b> 		<ul style="list-style-type: none"> <li>• Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions.</li> <li>• May work under the supervision of a registered nurse. Learning required.</li> </ul>	
<b>Registered Nurses</b> 		<ul style="list-style-type: none"> <li>• Assess patient health problems and needs, identify and implement nursing care plans, and monitor medical progress.</li> <li>• Administer nursing care to ill, injured, convalescing, or disabled patients. May supervise, instruct, and coordinate the activities of nursing assistants, orderlies, and other personnel.</li> <li>• May develop and design measures which will improve the nursing profession or contribute to the development of a new or revised nursing program.</li> <li>• May supervise computer programs.</li> </ul>	
<b>Software Developers, Applications</b> 		<ul style="list-style-type: none"> <li>• Analyze user requirements to determine software specifications.</li> <li>• Design, code, test, and debug new computer programs.</li> <li>• Perform quality assurance on existing programs to identify and correct errors.</li> <li>• May analyze and design hardware which is needed to run existing software or coordinating hardware development as part of a team.</li> <li>• May supervise computer programmers.</li> </ul>	

↑ These jobs are based on BLS7 industries for the economy, or finding a job to enter.
 ↑ These jobs are specialized in FTEMS, industries throughout the economy. Skills requirements are being met in these positions, leading work to move faster.

### WORKFORCE SOLUTIONS GULF COAST

**SALARY EARNED** (\$K) = ~\$20,000

<b>Accountants and Auditors</b> (\$K) (\$K) (\$K) (\$K)	<b>Licensed Practical and Licensed Vocational Nurses (LPN / LVN)</b> (\$K) (\$K)
<b>Computer Systems Analysts</b> (\$K) (\$K) (\$K) (\$K)	<b>Registered Nurses</b> (\$K) (\$K) (\$K)
<b>Electricians</b> (\$K) (\$K)	<b>Software Developers, Applications</b> (\$K) (\$K) (\$K) (\$K)

**ANNUAL GROWTH**

<b>Accountants and Auditors</b> 22%	<b>Licensed Practical and Licensed Vocational Nurses (LPN / LVN)</b> 21%
<b>Computer Systems Analysts</b> 29%	<b>Registered Nurses</b> 26%
<b>Electricians</b> 21%	<b>Software Developers, Applications</b> 30%

**ANNUAL OPENINGS**

Accountants and Auditors   14,426
Computer Systems Analysts   5,927
Electricians   8,800
Licensed Practical and Licensed Vocational Nurses (LPN / LVN)   7,189
Registered Nurses   17,493
Software Developers, Applications   6,311

DISTRICT CONTACT INFO | WEB CONTACT INFO

### Hot Job Document

A CTE newsletter and advanced academics newsletter are sent to CTE Listserv recipients periodically. Stakeholders receiving this newsletter include administrators, counselors, and teachers. Through this communication, information is made readily available on programs of study, work-based learning, advanced academics, and related resources.

The [TEA CTE website](#) houses information for CTE stakeholders, while the Texas CTE Resource Center includes more focused resources for administrators, counselors, and teachers.

Education Service Center CTE specialists are an integral link in the communication chain. There are 20 ESC CTE specialists across the state who provide technical assistance and training to LEAs in their region. Specifically, the ESC specialists offer trainings specific to Perkins V, programs of study, the comprehensive local needs assessment and the Perkins local application in each of the regions. This arrangement is part of expending Perkins leadership funds, which can be found in section 4d.

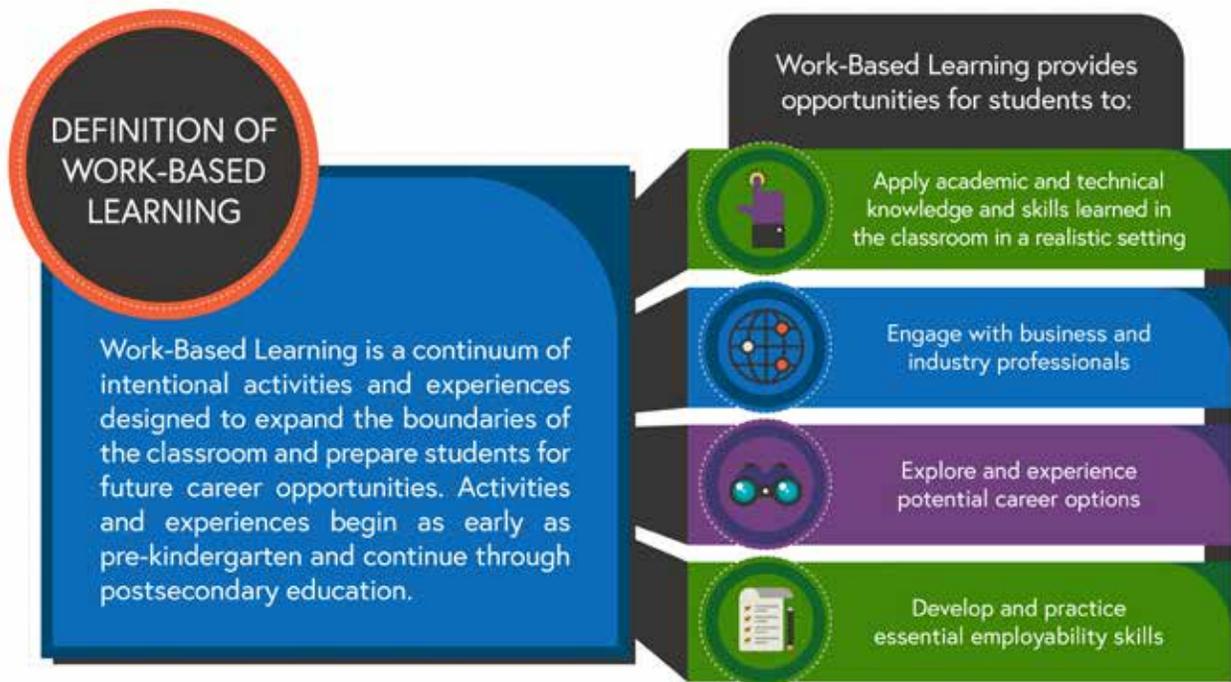
### Advising

The Effective Advising Framework (EAF) will provide districts a blueprint for developing or improving a coordinated, high-impact CCR Advising program. The EAF will define key components of quality advising programs. The EAF will offer a diagnostic tool to assess the district's current program and scaffolded supports for increasing effectiveness.

In addition, the TEA's creation of resources for faculty, such as school counselors and career coordinators, informs the selection of a program of study that culminates in the completion of an industry-based certification and a work-based learning opportunity. School counselors in Texas will receive training on Perkins V updates and programs of study implementation procedures to improve the quality of advisement students receive at the secondary and middle school level.

## Work-Based Learning

Texas is defining Work-Based Learning (WBL) as such:



Texas established that WBL needs to be a continuum of experiences across grade bands and that career awareness and exploration should happen in earlier grades. A program of study should culminate in a capstone work-based learning experience. Texas is defining a capstone work-based learning as a “sustained interactions with industry or community professionals in real workplace setting, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction.” Research indicates that for a capstone work-based learning experience to be high-quality, meaningful and impactful, four elements must be in place. Those elements include a partnership agreement, ensuring that the work experience is authentic, providing a structured learning component to the experience, and the experience should culminate with an assessment and recognition of skills.

In an effort to focus on earlier exposure to career exploration, Texas offers middle school CTE courses titled Investigating Careers and College and Career Readiness. In partnership with the University of Texas at Austin, Texas’s Beyond Grad initiative is creating a middle school curriculum designed to expose students to career exploration, college and career readiness knowledge, employability skills, and skills for building personal agency. The middle school curriculum uses Texas Essential Knowledge and Skills, Texas College & Career Readiness Cross-Disciplinary Standards, and Student Competencies as defined by the Texas Model for Comprehensive School Counseling Programs. This middle school curriculum will be piloted in Texas GEAR UP districts initially, followed by a statewide pilot during the 2020-2021 school year. The final version of the curriculum will be loaded into an online platform freely accessible to educators, students, and families across the state.

The middle school curriculum integrates TX OnCourse online tool, Map My Grad, which guides students through course selection to prepare a personal graduation plan in line with programs of study and advanced academics.

See TEA Appendix 5 for the Work-Based Learning Framework and Employability Skills Rubric.

### College and Career Readiness School Models

Texas has a robust landscape of College and Career Readiness School Models: Early College High Schools,

Pathways in Technology Early College High Schools, and Texas STEM Academies. These models are open enrollment programs that blend high school and college coursework to help historically underserved and at-risk students develop technical skills, earn college credentials and degrees, and pursue in-demand career paths. Texas is proud to serve over 370 campuses implementing these models. Each CCRSM school model has a blueprint, which provide benchmarks for the campus to meet. These blueprints can be found in Appendix 6.

### Advanced Academics

Advanced Academics includes courses, programs, assessments, services and supports that provide opportunities for students to demonstrate college and career readiness and earn postsecondary credit. Texas supports the following initiatives as part of advanced academics:

- Advanced Placement
- Dual Credit
- International Baccalaureate
- ACT
- SAT
- Texas Success Initiative Assessment (TSIA)

Advanced Placement and dual credit courses are embedded within CTE programs of study and the College and Career Readiness School Models, which support career pathways.

THECB posts approved statewide program of study curricula to its website and maintains a searchable database of approved local programs of study as resources for the general public, including secondary and postsecondary representatives and students and parents.

THECB maintains three websites as a resource for students, parents, and the general public. These websites are a key method of communicating up-to-date, current information and providing constant access to important tools and resources. The websites provide students and families with comprehensive and accurate information about how to enroll in college, how to select a college, how to pay for college, and how to ensure that a student's postsecondary choices are aligned with future career goals. THECB'S primary objective for the websites is to provide a reliable way to ensure the timely delivery of accurate information.

Resource Websites Overview		
Website	Audience	Goal
College For All Texans	All Texans	Increase college enrollment and completion by guiding visitors through the higher education process, including help with the admissions process, residency requirements, college costs, and types of financial aid
GenTX (Generation Texas)	Texas High School Students	Increase direct college enrollment by creating meaningful connections with Texas' high school students and positively supporting their college-going decisions.
Texas CREWS (Texas Consumer Resources for Education and Workforce Statistics)	All Texans	Provide comparative information about Texas public 2-year and 4-year postsecondary institutions.

THECB publicizes the following resources as part of its 60x30TX strategic plan for higher education:

- Texas Internship Challenge. The Texas Internship Challenge is a partnership among the Texas

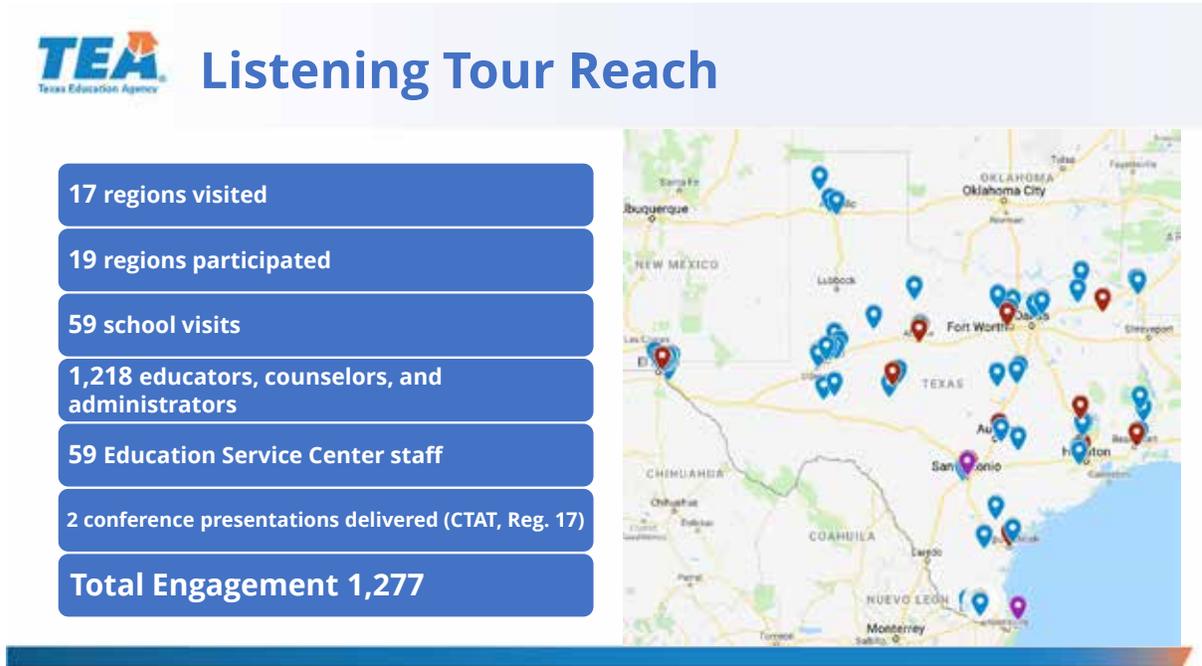
Workforce Commission (TWC), Texas Education Agency (TEA) and The Higher Education Coordinating Board (THECB), who challenge employers to offer paid internships and make it easy for students to search and apply for them. The Texas Internship Challenge addresses a workforce need for students to acquire workplace readiness skills that will help them be more competitive for full-time work. Internships provide students the opportunity to explore our state's in-demand occupations, gain professional experience, and make connections with professionals which can lead to a reference or a job. Internships provide employers the opportunity to explore talent, benefit from different and developing skill sets, and train candidates for fulltime positions.

- Texas WORKS. This is a centralized off-campus work-study program that will provide students with limited financial means an opportunity to pursue paid internships. The strength of the Texas economy and the wide range of Texas industries offer an opportunity to provide college students with paid internships or other concurrent work experiences to strengthen their marketable skills and support transition to the workforce. Texas WORKS (Working Off-campus: Reinforcing Knowledge & Skills) Internship Program will provide paid internship opportunities for full-time undergraduate students and advance the state's 60x30TX goals relating to marketable skills and student debt.

**ii. facilitate collaboration among eligible recipients in the development and coordination of career and technical education programs and programs of study and career pathways that include multiple entry and exit points;**

Industry advisory committees were developed for creation of the statewide approved programs of study. Individuals from workforce development, industry, secondary education, and higher education were convened to work through occupational alignment to programs of study, alignment to postsecondary education and training opportunities, and course sequencing within programs of study. These committees met from July through December 2018.

From December 2018 through May 2019, the TEA staff representing CTE, work-based learning, and STEM traveled to meet with 19 of the 20 ESCs on a listening tour. Information was shared concerning Perkins V planning and transition year, programs of study, and the developing work-based learning and STEM frameworks.



**College, Career and Military Readiness Listening Tour Locations**

Proposed statewide programs of study were released for public comment from June 3, 2019 through July 19, 2019. During this time, the TEA solicited feedback from LEAs, industry, parents, and any individual who wished to contribute. The feedback gathered during this time was considered by the TEA program specialists and incorporated into the final programs of study which were released on September 5, 2019.

ESC CTE specialists were trained on all aspects of programs of study and the comprehensive local needs assessment. ESC CTE specialists then held trainings specific to programs of study and the comprehensive local needs assessment in their regions.

The TEA established a CTE statewide leadership committee comprised of administrators selected from each ESC region. This group meets via webinar and face-to-face throughout the year. Feedback is solicited from the committee regarding all areas of CTE, with specific emphasis on programs of study and the comprehensive local needs assessment. LEAs have the opportunity to apply for regional programs of study. The application process is open annually and regional programs of study are approved for an implementation period of four years. ESC CTE specialists are leaders within their region for facilitating this process. Through the Texas Regional Pathways Network, grantees are brought together as a region to plan for aligning CTE program offerings to regional labor market information. This is a facilitated process through regional convenings, state convenings, and regional asset mapping.

THECB develops postsecondary statewide programs of study through advisory committees comprising secondary and postsecondary representatives and workforce representatives. Each program of study is subject to a 30-day public comment period for feedback from secondary and postsecondary representatives, industry, students, and any other member of the public who wishes to contribute. Each advisory committee considers the feedback received and incorporates curricular modifications based on committee judgment prior to final approval by the Board.

Postsecondary institutions are required as a condition of receiving Perkins funds to develop memoranda of understanding with their constituent secondary school districts for collaboration in the delivery of dual credit career and technical education courses and programs, including programs of study.

**iii. use State, regional, or local labor market data to determine alignment of eligible recipients' programs of study to the needs of the State, regional, or local economy, including in-demand industry sectors and occupations identified by the State board, and to align career and technical education with such needs, as appropriate;**

See response in section B.2.a and B.2.b. See CLNA in TEA Appendix .8 and THECB Appendix 4.

**iv. ensure equal access to approved career and technical education programs of study and activities assisted under this Act for special populations;**

The TEA uses leadership funds to solicit a contract designed to support students in special populations and assist the TEA in developing processes, procedures, and training to support equitable access across all programs of study. At both the secondary and postsecondary levels, applicants for Perkins funding must indicate the steps taken to ensure that all individuals from special populations are provided equal access to CTE programs and activities. Local programs are required to sign provisions and assurances in the local application for funds to receive Perkins funding. Secondary and postsecondary recipients must identify any barriers that exist for special population groups within the Comprehensive Local Needs Assessment. As a condition of receiving funding, postsecondary institutions must describe in the local application how special populations students will be provided equal access to career and technical courses, programs, and programs of study toward preparation for high-skill, high-wage, and in-demand occupations. Postsecondary institutions must additionally describe how they will address gaps in special populations performance identified in the Comprehensive Local Needs Assessment.

The TEA has a contract for a statewide CTE evaluation that will evaluate numbers of CTE participants and CTE concentrators at the career cluster level and will disaggregate the information based on the special population categories. The TEA will also partner with an external group/consultant to ensure that there is training provided to the TEA staff and education service center CTE specialists. Data will be provided to LEAs so they can best address performance gaps in CTE programming through the Comprehensive Local Needs Assessment.

LEAs ensure equal access to programs through yearly non-discrimination notifications to students, parents, school employees, and the public. Nondiscrimination statements are required in all district publications. As a recipient of federal financial assistance, postsecondary institutions, LEAs and charter schools are required to comply with federal laws and regulations that prohibit discrimination based on race, color, national origin, sex, and disability in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and

Section 504 of the Rehabilitation Act of 1973, as amended. (District/campus) will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

THECB requires biannual progress reports from its 54 community, state, and technical colleges receiving Perkins formula funds. Reports must show progress on each activity in the approved Local Application or address impediments to progress and show how the local institution has responded. Beginning with the FY 2021 Local Application, institutions must commit Perkins formula funds to reducing special populations performance gaps identified in the Comprehensive Local Needs Assessment (CLNA) as a condition for receiving funds. Biannual reporting will document programmatic activity toward reducing special populations performance gaps.

Postsecondary institutions must publish continuous notice that they do not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs or activities, and provide the name or title, address, telephone number, and email address of the Coordinator(s) designated to oversee compliance with civil rights laws, including who to contact for complaints regarding Section 504. The notice must be prominently placed in each announcement, bulletin, catalog, application form, newsletter, magazine, website and any electronic publications, written materials distributed to students, notices posted on campus, and the local newspaper.

Postsecondary institutions must additionally provide public annual notification prior to the beginning of each school year that their career and technical education programs are offered without regard to race, color, national origin, sex, or disability. Annual notification must be made through media that reach the general public; include a brief summary of the program offerings and admissions criteria; and identify the name/title, address, and telephone number of the Title IX and Section 504 compliance coordinator(s). If there is a community of national origin minority persons with limited English language skills in the recipient's service area, the notice must be disseminated to that community in its language and must state that a lack of English language skills will not be a barrier to admission to and participation in career and technical education programs.

THECB performs oversight of public, two-year community, state, and technical colleges for compliance with federal civil rights statutes and their implementing regulations. THECB conducts a biannual risk assessment using a targeting plan approved by the Department of Education's Office of Civil Rights (OCR) and conducts two site visits annually based on risk assessment outcomes.

**v. coordinate with the State board to support the local development of career pathways and articulate processes by which career pathways will be developed by local workforce development boards, as appropriate;**

Workforce system partners own components and implementation of the State Board strategic plan (WIOA). The Texas Education Agency (TEA) and the Texas Higher Education Coordinating Board (THECB) are responsible and accountable for strategies and objectives in goals 1, 2 and 3. Appendix XX provides the vision, mission, and goals of the Texas Workforce System Strategic Plan which also includes specific activities as well as metrics for each goal. A part of this work was the program of study development mentioned in section B.2.a and B.2.b.

Additionally, the TEA partnered with the Texas Workforce Investment Council to align processes for validating industry-based certifications. This partnership created the process to establish criteria for industry-based certifications and provided an avenue to work with regional workforce development board executive directors to solicit feedback from employers on the value of the recommended industry-based certifications.

Texas also established the Tri-Agency partnership, a monthly convening and strategizing session among the Texas Workforce Commission, Texas Higher Education Coordinating Board, and the Texas Education Agency. This partnership is facilitated by the Texas Workforce Investment Council (the State's workforce board). Through the Tri-Agency partnership, an Education to Workforce Summit was held to strengthen education pathways into the workforce. This summit included representation from each of the 28 workforce boards and required regional teams who attended to include representation of the following: at least three secondary independent LEAs, institutions of higher education, employers, local workforce board members, education service center members, and community leaders.

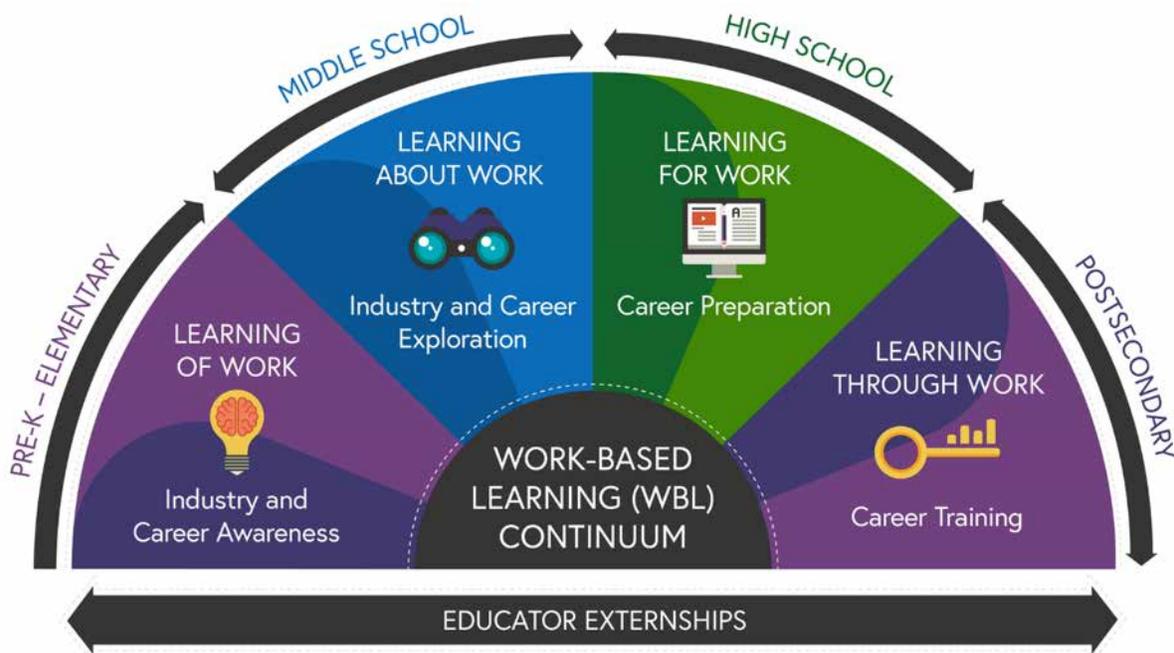
All of the stakeholders mentioned in this section are partners in the Texas Regional Pathways Network. The Texas Regional Pathways Network (TRPN) builds regional talent pipeline that spur economic growth across the state and ensure that all Texans have the skills and credentials needed for economic advancement. It brings together state and regional leaders to build strong educational and career pathways that prepare Texans for careers in high-wage, in-demand industries. Leaders engaged in the TRPN represent multiple sectors, including K-12 education, postsecondary education, workforce and economic development, business and industry, government, and non—profit and community-based organizations.

To support the goals of 60x30TX, THECB established a regional targets initiative in 2017 organized around the ten higher education districts in the state. Designed to include all the postsecondary institutions in each region, teams were provided with funds to build regional infrastructure and programs, a “Regional Starter Kit” with key data on student outcomes, and coaching and guidance to develop a regional impact strategy and create a cross sector core team with secondary and workforce partners. Supportive webinars and convenings that feature updates on outcomes and sharing of best practices are planned through 2020.

- vi. **support effective and meaningful collaboration between secondary schools, postsecondary institutions, and employers to provide students with experience in, and understanding of, all aspects of an industry, which may include work-based learning such as internships, mentorships, simulated work environments, and other hands-on or inquiry-based learning activities; and**

Texas defines capstone work-based learning experiences to align with the definition provided in Perkins V legislation. This definition indicates that capstone work-based learning experiences provide sustained interactions with industry or community professionals in real workplace settings, to the extent practical, or simulated environments at the educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction. The TEA believes that work-based learning should start in early grades and progress through postsecondary education.

**Work-Based Learning Continuum**



Industry and Career Awareness	Industry and Career Exploration	Career Preparation	Career Training
<ul style="list-style-type: none"> <li>• <b>In School Activities:</b> <ul style="list-style-type: none"> <li>• "Career Day" events</li> <li>• Career play centers</li> <li>• Guest speakers</li> <li>• Interest surveys</li> <li>• Lunch and Learns</li> <li>• Strengths finders</li> </ul> </li> <li>• <b>Out of School Activities:</b> <ul style="list-style-type: none"> <li>• College visit</li> <li>• Field trips</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>In School Activities:</b> <ul style="list-style-type: none"> <li>• Aptitude assessments <ul style="list-style-type: none"> <li>• Armed Services Vocational Aptitude Battery Career Exploration Program</li> </ul> </li> <li>• Guided research projects</li> <li>• Interest surveys</li> <li>• Mentorship programs</li> <li>• Project-based learning</li> <li>• Strengths finders</li> </ul> </li> <li>• <b>Out of School Activities:</b> <ul style="list-style-type: none"> <li>• Explorer Club</li> <li>• Interviewing professionals</li> <li>• Job shadowing</li> <li>• Supervised Agricultural Experience (Exploratory)</li> <li>• Worksite tours</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>In School Activities:</b> <ul style="list-style-type: none"> <li>• Credential or license attainment</li> <li>• Mock job interviews</li> <li>• Simulated workplace programs</li> </ul> </li> <li>• <b>Out of School Activities:</b> <ul style="list-style-type: none"> <li>• Career Preparation</li> <li>• Clinical rotations</li> <li>• Career and Technical Student Organization competitions</li> <li>• Explorer Post</li> <li>• Internships</li> <li>• Practicum</li> <li>• Pre-apprenticeships \ Youth Apprenticeships</li> <li>• Supervised Agriculture Experience (Production or Entrepreneurship)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>In School Activities:</b> <ul style="list-style-type: none"> <li>• Associates Degree and/or Bachelors Degree</li> <li>• Credential or license attainment</li> <li>• Skill retraining</li> </ul> </li> <li>• <b>Out of School Activities:</b> <ul style="list-style-type: none"> <li>• Registered Apprenticeships</li> <li>• Industry-Recognized Apprenticeships</li> <li>• Internships</li> </ul> </li> </ul>

### **Work-Based Learning Activity Examples**

In order to help students thoroughly understand all aspects of an industry, the TEA has engaged secondary, postsecondary and employers through industry advisory committees, CTE leadership committee, Tri-Agency partnerships, Texas Regional Pathways Network committee, and work-based learning advisory committee. These stakeholders have assisted with the development of the programs of study, and the alignment of industry-based certifications and work-based learning experiences.

The TEA will develop or procure a technology product which has the capabilities to collect, analyze, store, monitor, and report on work-based learning opportunities participated in by students across Texas. The TEA seeks a technology solution which will allow users at all levels (classrooms, training stations, schools, Education Service Centers, state agencies, etc.) to enter pertinent information related to work-based learning experiences. Intended outcomes from procuring and utilizing a statewide work-based learning data collection system include:

- Better identification of the types of work-based learning experiences available to students (internships, pre-apprenticeships, apprenticeships, etc.)
- Better identification of the employers engaged in supporting work-based learning experiences across the state
- Increased documentation of students' employability skills
- Facilitating connections between educational institutions and employers in order to establish work-based learning opportunities
- Improved development of work-based learning training plans

To facilitate the implementation of work-based learning at the local level, two primary strategies will be utilized. First, virtual tools will be identified to help students participate in virtual work-based learning experiences. This strategy will be highly important in the many rural areas of Texas. Second, an intermediary network will be piloted and scaled. Intermediaries are an essential element to the work-based learning delivery model. In a pilot program, work-based learning intermediaries will be placed in various regions of the state and tasked with coordinating alignment and efforts between local schools and employers. If the pilot program shows evidence of success, it will be scaled for greater impact.

The Texas Regional Pathway Network supports cross-sector teams of regional stakeholders who are building education and career pathways that align with labor market demand. It facilitates peer learning, strategic planning, and sharing of best practices, challenges, and lessons learned in pathways development. The TRPN convenes twice annually, and members also have access to an array of Tri-Agency and other state resources, including funding and technical assistance opportunities.

The Texas Regional Pathway Network provides technical assistance to grantees through the following activities:

<p><b>Possible Technical Assistance for Cross-Sector Partnerships</b></p> <ul style="list-style-type: none"> <li>Support for strategic planning and vision setting</li> <li>Intermediary capacity building, including sustainability planning</li> <li>Advising on the development of MOU's</li> <li>Facilitation of regional pathways steering committee or planning team meeting of regional stakeholders</li> <li>Facilitation of cross-district student pathways development and coordination</li> <li>Development of fundraising and communications strategies</li> <li>Advising on the use of data and metrics to support pathways development and continuous improvement</li> </ul>
<p><b>Possible Technical Assistance for Alignment with Labor Market Demand</b></p> <ul style="list-style-type: none"> <li>Development of reverse mapping process, including processes for employer engagement and feedback, and support its implementation</li> <li>Support in understanding LMI and how to use it to design pathways</li> <li>Skills mapping: work with employers and educators to identify technical and employability competencies that are in-demand in the regional labor market and can be used to inform pathways design</li> </ul>
<p><b>Possible Technical Assistance for Links Between Secondary and Postsecondary Education</b></p> <ul style="list-style-type: none"> <li>Support in aligning programs of study from secondary to postsecondary, including convening working groups comprised of secondary and postsecondary educators</li> <li>Advising on the development of bridge programs and other initiatives that support seamless transitions from secondary to postsecondary</li> </ul>
<p><b>Possible Technical Assistance for Integration of Rigorous Academics and Career-Focused Learning</b></p> <ul style="list-style-type: none"> <li>Support for CCRSM development</li> <li>Advising on strategies for leveraging CCRSM's to support pathways</li> <li>Advising on strategies for creating infrastructure, such as common planning time, to support teachers in CTE programs and core academic subjects in developing integrated approaches</li> </ul>
<p><b>Possible Technical Assistance for College and Career Information and Advising</b></p> <ul style="list-style-type: none"> <li>Development of college and career information and advising continuum</li> <li>Support for familiarizing teachers and counselors with LMI resources</li> <li>Support in identifying related out-of-school time programs and connecting them to pathways</li> </ul>
<p><b>Possible Technical Assistance for Continuum of Work-Based Learning Opportunities</b></p>

Development of WBL continuum

Creation of tools and resources for educators and employers

Capacity building for intermediaries creating infrastructure to support WBL

**Possible Technical Assistance for Credentials with Value in the Labor Market**

Development of processes for soliciting employer feedback on credentials

Support using LMI to identify promising credentials

THECB requires that colleges comply with the Guidelines for Instructional Programs in Workforce Education (GIPWE) in developing CTE programs.

GIPWE requires that a college must provide at least one of the following for each approved award: a) capstone experience, b) eligibility for a credentialing exam, and/or c) an external learning experience. The experience should occur during the last semester of the student's educational program.

The capstone is a learning experience resulting in consolidation of a student's educational experience and certifies mastery of entry-level workplace competencies. Methods of providing a capstone experience include the following:

1. a comprehensive, discipline-specific examination prepared by the faculty of the workforce education program and administered at the conclusion of the program;
2. a course involving simulation of the workplace, case studies, portfolios, and employment scenarios; and
3. a discipline-specific project involving the integration of various teams of students performing activities to simulate situations that may occur in the workplace.

Credentialing exams are licensure, certification, or registration exams provided by state or national agencies or by professional organizations. An external learning experience, paid or unpaid, enhances lecture and laboratory instruction and is provided at work sites appropriate to the discipline. The inclusion of an external learning experience in both certificate and applied associate degree plans is strongly recommended. The external learning experience allows a student to have practical, hands-on training and to apply learned concepts and theories in a workplace setting. There are five types of external learning experiences: clinicals, internships, practica, cooperative education, and apprenticeships. Clinical and internship experiences provide workplace settings in which students learn and apply program theory and management of the workflow.

**vii. improve outcomes and reduce performance gaps for CTE concentrators, including those who are members of special populations. (Section 122(d)(4)(C) of Perkins V)**

By using CTE course completer data, a true picture of performance gaps for all student populations will identify opportunities for districts to provide targeted assistance.

The TEA CCMP division will review the current model of differentiated supports for technical assistance and supports that are being used by Review and Support/RDA, such as Universal Supports, Targeted Supports, and Intensive Supports to see if additional resources for support are needed. For each level, LEAs could choose supports that would match the gaps and outcomes that they need to address.

Our special education department at TEA holds a policy roundtable to discuss key legislative issues and statewide needs related to special education. A CTE education specialist attends the roundtable to provide information and to gain an understanding of how CTE can assist with special education student needs. Additionally, the Review and Support department at TEA meets with the CTE team related to cross-functional projects and student needs.

THECB provided each of the state's 54 public postsecondary institutions with disaggregated special populations performance data as a component of its resources supporting the Comprehensive Local Needs Assessment. Data was provided to each institution by cluster or program at the two- or four-

digit CIP code level to comply with FERPA. Postsecondary institutions are required to address identified performance gaps with Perkins funds as a condition for receiving a formula grant.

Postsecondary institutions are required to address identified performance gaps with Perkins funds as a condition for receiving a formula grant. Disaggregated performance results are monitored by THECB.

**d. Describe how the eligible agency, if it opts to do so, will include the opportunity for secondary school students to participate in dual or concurrent enrollment programs, early college high school, or competency-based education. (Section 122(d)(4)(D) of Perkins V)**

Texas College and Career Readiness School Models include: Early College High Schools (ECHS), Pathways in Technology Early College High Schools (P-TECH) and Texas Science, Technology, Engineering, and Mathematics (T-STEM) academies provide opportunities for students to bridge the gap between high school and college and career and earn credentials such as degrees and certifications. Specific requirements are outlined in the model specific Blueprints which includes Benchmark requirements and Outcomes-Based Measures (OBM) All three models must be:

- open enrollment
- Provided to students a no cost
- Provide student supports including academic, social, and emotional
- Provide an opportunity to earn college credit
- Partner with Texas Institutions of Higher Education (IHEs) for courses to earn college credit (both academic and workforce)
- Provide flexible scheduling

ECHS Campuses specifically must provide:

- students the opportunity to earn an associate degree or up to 60 college credit hours prior to high school graduation
- up to 5 years to complete their associate degree and high school diploma

Both the P-TECH and T-STEM campuses must provide:

- students grade 9 through 12 (P-TECH) and 6-12 (T-STEM) the opportunity to complete a course of study that combines high school and post-secondary courses.
- enable students to earn a high school diploma, an associate degree, a two-year post-secondary certificate or industry certification, and complete work-based training
- allow students to gain work experience through an internship, apprenticeship, or other job training programs.
- partner regional businesses and industries, giving students access to post-secondary education and workforce training opportunities.
- 6 years to complete high school and earn credential (P-TECH)

ECHS, PTECH and T-STEM campus' are held accountable through the OBMs in each Blueprint. The OBMs are in the following areas:

- Access measures if the CCRSM campuses is serving all student populations with an emphasis on at-risk and underrepresented students
- Attainment measures if the students on the CCRSM campuses are reaching particular measure such as: earning a credential (degree and/or certification), completing work-based learning, completing college level courses etc.

- Achievement measures of the students on the CCRSM campuses are achieving certain measures such as meeting/masters level scaled scores on state achievement tests, college readiness on SAT/ACT/TSIA etc

Programs of study development included alignment to postsecondary education as occupational groupings were determined. The Classification of Instructional Program (CIP) codes that align to each program of study were reviewed and additional occupations which share postsecondary training were considered. This gives an additional opportunity to focus students toward attaining skills that lead to high-wage, high-skill, and in-demand careers with multiple entry and exit points.

Beginning in the 2019-2020 school year, LEAs were eligible to be reimbursed for the administration of either the SAT, ACT, or TSI-A exam for students in their junior or senior year of high school. This opportunity allows more students the ability to pursue higher education as well as dual credit and concurrent enrollment at no cost to the student, their families or the LEA. Some CTE programs of study include advanced academics like AP where appropriate. For example, Cybersecurity includes AP Computer Science Principles and AP Computer Science A.

The Advanced Academics team at the TEA developed a website and newsletter for communication with the field. These tools allow for dissemination of information to LEAs which is concentrated and focused, allowing for additional touchpoints and guidance for school administrators, counselors, and other stakeholders.

Consistent with statewide stakeholder input and applicable state law, THECB and the TEA will continue and strengthen its support of dual credit enrollment programs. THECB and the TEA will seek through the Tri-Agency Partnership and the Texas Workforce Investment Council to align more closely the curricula of secondary and postsecondary programs of study, as described in Sec. B.2.a above.

- Establishment of a Dual Credit Memorandum of Understanding (MOU). THECB requires that dual credit partnerships operate through a MOU that details how the junior/community college will offer courses for dual credit to students enrolled at school districts/secondary schools. All dual credit MOUs must contain the following elements:
  1. Eligible Courses;
  2. Student Eligibility;
  3. Location of Class;
  4. Student Composition of Class;
  5. Faculty Selection, Supervision, and Evaluation;
  6. Course Curriculum, Instruction, and Grading;
  7. Academic Policies and Student Support Services;
  8. Transcription of Credit;
  9. Funding; and
  10. Defined Sequences of Courses, where applicable.
- Financial Incentives to Offer CTE Dual Credit Courses. THECB rules implement TEC 61.059, which allows public junior/community colleges to claim state formula funding for college CTE courses offered to high school students through dual credit partnerships. THECB further incentivizes the delivery of CTE courses to high school students through the Community College Success Points process. Public junior/community colleges can claim a percentage of legislatively allocated success point funding for high school students who complete course requirements for Board-approved Level 1 and Level 2 certificates and applied associate degrees.

**e. Describe how the eligible agency will involve parents, academic and career and technical education teachers, administrators, faculty, career guidance and academic counselors, local business (including small businesses), labor organizations, and representatives of Indian Tribes and Tribal organizations,**

**as appropriate, in the planning, development, implementation, and evaluation of its career and technical education programs. (Section 122(d)(12) of Perkins V)**

See response in section 2.c.ii for stakeholder involvement in the program of study development.

The TEA and THECB make use of industry advisory committees representing parents, academic and CTE teachers, administrators, counselors, and local businesses. In addition, TEA has established a CTE Leadership Committee which includes an administrator from an LEA in each of the 20 education service center regions. Education Service Center CTE specialists from each region provide training and technical assistance throughout the state and play a key role in CTE. Each of these groups meet regularly to inform the planning, development, implementation, and evaluation of CTE at the state and local levels. These stakeholders provide a balanced geographic representation on all advisory committees.

The Career and Technical Association of Texas (CTAT) is the professional organization for CTE administrators in the state. Members include CTE directors, CTE teachers, counselors, and LEA administration. The partnership between CTAT and TEA helps to inform the planning, development, implementation, and evaluation of CTE. Throughout the development of the Perkins V State Plan, these stakeholder groups were asked to engage in the development and evaluation of the plan for Texas.

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Statewide postsecondary program of study (POS) advisory committee members include representatives of secondary and postsecondary education, business and industry, other state agencies and licensing bodies as relevant, and other career and technical education experts. All proposed POS adopted by advisory committees are subject to a 30-day public comment period. Comments are reviewed and acted upon by a committee before a proposed POS goes to the board for approval.

WECM Advisory Committee membership includes representatives from public community, state, and technical college as well as representatives from the Texas Association of College Technical Educators (TACTE), the Texas Administrators of Continuing Education (TACE), and the Texas Association of College Registrars and Admissions Officers (TACRAO).

Agendas for advisory committee meetings are posted in the Texas Register at least 10 days in advance. Advisory committee meetings are open to the public and broadcast via the web. Advisory committee minutes are maintained in a form and location that is easily accessible to the public on THECB's website.

The Texas Association of Career and Technical Educators (TACTE) is the state's professional association for postsecondary CTE faculty and administrators. THECB partners with TACTE to receive field input on CTE issues and for dissemination Perkins information. TACTE maintains a Perkins page on its website and incorporates presentations by Perkins State Leadership programs its annual conference.

**f. include a copy of the local application template that the eligible agency will require eligible recipients to submit pursuant to section 134(b) of Perkins V. See Text Box 4 for the statutory requirements for local applications under section 134(b) of Perkins V.**

See TEA Appendix 7 for the Secondary Perkins V Local Application.

See THECB Appendix 3 for the Postsecondary Perkins V Local Application

**g. include a copy of the comprehensive local needs assessment template and/or guidelines that the eligible agency will require of eligible recipients to meet the requirements of section 134(c) of Perkins V. See Text Box 5 for the requirements for the comprehensive local needs assessment under section 134(c) of Perkins V.**

See TEA Appendix 8 for the Comprehensive Local Needs Assessment.

See THECB Appendix 4 for the Postsecondary Perkins V Comprehensive Local Needs Assessment

**h. Provide the eligible agency's definition for "size, scope, and quality" that will be used to make funds available to eligible recipients pursuant to section 135(b) of Perkins V.**

Career and Technical Education (CTE) programs of study must meet the criteria of sufficient size, scope, and quality to be effective and seek funding under the Act. Size is defined as providing sufficient opportunity for youth and adult learners to matriculate through concentrator and completer status at the secondary and postsecondary levels. This means that LEAs must offer a specific number of programs of study based upon their district high school enrollment numbers. The table below demonstrates the minimum number of programs of study required:

High School Enrollment	Number of Programs of Study Offered
Less than 500 students	1 program of study
501-1,000 students	2 programs of study
1,001-2,000 students	3 programs of study
2,001-5,000 students	4 programs of study
5,001-10,000 students	5 programs of study
10,001 + students	6 programs of study

LEAs should provide the opportunity for students to complete a program of study within four years. Completion is defined as three or more courses for four or more credits with at least one level three or four course within a single program of study.

Scope is defined as including rigorous academic and technical standards, employability skills, and by providing students with opportunities to earn industry-recognized credentials, participate in work-based learning experiences, and connect secondary to postsecondary coursework. Quality is defined as providing sufficient opportunity to meet or exceed performance targets under the Perkins V Act, providing support for special populations enrolled in CTE programs, providing procedures to continuously improve all aspects of programs, and including Career and Technical Student Organization participation. Postsecondary institutions must meet the criteria set forth in the Guidelines for Programs in Workforce Education (GIPWE) described in Section B.2.b above.

Beginning with the FY 2020-2021 program year, postsecondary institutions will be required as a condition of receiving Perkins funding to develop secondary/postsecondary program of study MOUs with one or more constituent high schools consistent with THECB-designated enrollment peer group designation:

Enrollment Peer Group	Number of Secondary/Postsecondary Program of Study MOUs
Small	1-3
Medium	3-5
Large	5-7
Very Large	7-9

### 3. Meeting the Needs of Special Populations

#### a. Describe the eligible agency's program strategies for special populations, including a description of how individuals who are members of special populations—

##### i. will be provided with equal access to activities assisted under this Act;

Students in special populations may be a participant or participate in the following programs: Bilingual Education/English as a Second Language, Career and Technical Education, Every Student Succeeds Act and Special Education.

Special populations are defined as individuals with disabilities, individuals from economically disadvantaged families, individuals preparing for non-traditional fields, pregnant and parenting students, out of workforce individuals, English learners, homeless and unaccompanied youth, youth in foster care, students with a parent or guardian who is an active duty member of the Armed Forces, including full-time National Guard duty, and migrant students.

The TEA has a contract for a statewide CTE evaluation that will look at results of CTE participants and CTE concentrators at the career cluster level and will disaggregate the information based on the special

populations categories. The TEA will also partner with an external group/consultant to ensure that there is training provided to the TEA staff and education service center CTE specialists. Data will be provided to CTE administrators to enable them to best address performance gaps in CTE programming through the Comprehensive Local Needs Assessment (CLNA).

At both the secondary and postsecondary levels, applicants for Perkins funding must indicate the steps taken to ensure that all individuals from special populations are provided equal access to CTE programs and activities. Local programs are required to sign provisions and assurances in the local application to receive Perkins funding. Secondary and postsecondary recipients must identify any barriers that exist for special population groups within the Comprehensive Local Needs Assessment (CLNA).

In the eGrant application for secondary Perkins funds, districts must identify strategies to meet the needs of special populations, including strategies to assure that students who are members of special populations are provided equal access to CTE programs. If the admission, review, and dismissal (ARD) committee for secondary students with disabilities refers a student to a CTE sequence of courses, the committee must include a CTE representative, preferably a CTE teacher, so students are appropriately placed and served in CTE programs.

Postsecondary institutions use a variety of strategies for assisting special populations such as:

- providing outreach and recruitment information, including outreach and recruitment encouraging enrollment in nontraditional programs of study
- identifying and following up with special populations students;
- supporting special populations students with enhanced advisement services, tutoring services, success coaches, and career coaches
- determining special needs for accommodations so that students can succeed;
- providing in-service activities for CTE teachers, counselors, and administrators;
- providing special instructional materials as needed;
- providing Perkins funds for childcare, transportation, textbook loan programs, and credential testing vouchers.

Eligible recipients at the local level ensure that strategies and services for special populations in CTE programs are appropriate and prepare special population students for high-skill, high-wage, and in-demand occupations. Additional strategies include:

- career exploration activities and resources that are free of gender bias; and incorporate Universal Design for Learning
- comprehensive career development for academic counseling and career guidance; that includes assistive technology, office of disability services information, and ADA/Section 504 requirements
- equitable access to quality work-based learning opportunities; and
- information on nontraditional training in high-skill, high-wage, or high-demand fields.

**ii. will not be discriminated against on the basis of status as a member of a special population;**

The Texas Education Results Driven Accountability (RDA) is a comprehensive evaluation system designed to improve student performance and program effectiveness to support Local Education Agencies (LEAs). The RDA framework is a data-driven system that utilizes performance indicators, data validation indicators, and other indicators of program compliance required by federal law. Specific program areas include: Bilingual Education or English as a Second Language (BE/ESL), Career and Technical Education (CTE), Every Student Succeeds Act (ESSA), and Special Education (SPED).

TEA monitors special population subgroups to ensure that there is no form of exclusion from CTE programs or a disproportionately high number of special population students in CTE programs. LEAs are

evaluated in each program area and assigned an overall performance level (PL). The LEA will be assigned a PL0, PL1, PL2, PL3 or PL4 for each indicator and program. The PL is aligned to a specific level of support. The Review and Support staff at TEA will provide general supervision and progress monitoring of the Strategic Support Plan (SSP) and link LEAs to technical assistance for program-specific needs. The SSP incorporates data findings, problem statements, and root causes that address areas of low performance and program ineffectiveness for ESSA indicators.

LEAs ensure equal access to programs through yearly non-discrimination notifications to students, parents, school employees, and the public. Nondiscrimination statements are required in all district publications. As a recipient of federal financial assistance, LEAs are required to comply with federal laws and regulations that prohibit discrimination based on race, color, national origin, sex, and disability in its vocational programs, services or activities as required by Title VI of the Civil Rights Act of 1964, as amended; Title IX of the Education Amendments of 1972; and Section 504 of the Rehabilitation Act of 1973, as amended. LEAs will take steps to assure that lack of English language skills will not be a barrier to admission and participation in all educational and vocational programs.

During the Methods of Administration (MOA) review, the identification of campuses within districts is based on methodology that reviews the disproportionality of representation of student groups enrolled in CTE courses in comparison to the demographics represented on the campus. Additional consideration is also based on the number of years since the last on-site review and the student enrollment count on the campus. Campuses are selected for review based on the Texas Education Agency's targeting plan. The selection criteria in the targeting plan places emphasis on the provision of equitable opportunities for students to participate in CTE. Students representing identified special populations enrolled in a CTE course are compared to the general population enrolled in a CTE program of study.

Individuals who have complaints regarding program access issues may take their concern to their local school board or to the TEA.

Texas universities and community, state, and technical colleges are required to be non-discriminatory and must post a statement to that effect in all college publications. Data on student populations is gathered, reported, and analyzed through the THECB's accountability and reporting systems. To monitor civil rights compliance, THECB conducts a biannual risk assessment of public, two-year community, state, and technical colleges, using a targeting plan approved by the Department of Education's Office of Civil Rights (OCR). Four colleges are subject in each biennium to Methods of Administration (MOA) civil rights compliance site visits based on the risk assessment. THECB additionally submits a biannual report to the U.S. Department of Education Office for Civil Rights on findings made during the previous two years' MOA site visits and colleges' resolutions of violations identified. THECB staff conducting MOA site visits attend annual, required training provided the OCR.

**iii. will be provided with programs designed to enable individuals who are members of special populations to meet or exceed State determined levels of performance described in section 113, and prepare special populations for further learning and for high-skill, high-wage, or in-demand industry sectors or occupations;**

The Texas Education Results Driven Accountability (RDA) is a comprehensive evaluation system designed to improve student performance and program effectiveness to support LEAs. The RDA framework is a data-driven system that utilizes performance indicators, data validation indicators, and other indicators of program compliance required by federal law. Specific program areas include: Bilingual Education (BE) and English as a Second Language (ESL), Career and Technical Education (CTE), Every Student Succeeds Act (ESSA), and Special Education (SPED).

LEAs are evaluated in each program area and assigned an overall performance level (PL). The LEA will be assigned a PL0, PL1, PL2, PL3 or PL4 for each indicator and program. The PL is aligned to a specific level of support. Review and Support staff at TEA will provide general supervision and progress monitoring of the Strategic Support Plan (SSP) and link LEAs to technical assistance for program-specific needs. The SSP incorporates data findings, problem statements, and root causes that address areas of low performance and program ineffectiveness for ESSA indicators.

Texas offers a single path to a graduation diploma for all students including students that fall within the special population categories. LEA's should provide:

- programs of study that lead to an endorsement
- career exploration and preparation activities, and resources that are free of bias and incorporate UDL strategies
- comprehensive career development for academic counseling and career guidance that includes assistive technology, office of disability services information, and ADA/Section 504 requirements
- equitable access to quality work-based learning opportunities and career development instruction
- information on nontraditional training in high-skill, high-wage, and high-demand fields

The Texas 21st Century Community Learning Centers (CCLC) program, also called the Texas Afterschool Centers for Education (Texas ACE), provides competitive grant funding to 83 grants serving students in 610 centers across the state. The program provides academics, academic enrichment, and other expanded learning opportunities during non-school hours for children, particularly students who attend high-poverty and low-performing schools in order to help students meet state and local student standards in core academic subjects, such as reading and math, and meet other academic and related outcomes. Most grantees serve at least one campus implementing comprehensive support and improvement activities or targeted support and improvement activities under ESEA as amended, Section 1111(d) and serving campuses with an at risk population greater than the state average.

The activities provided reinforce and complement the regular academic programs of the schools attended by the students and are targeted to the students' academic needs. The TEA provides supports for local programs to conduct annual needs assessments and program evaluation that drive continuous program improvement and result in high quality programs that help students reach their academic goals. Activities that are common in Texas ACE programs include tutoring, homework help, nutritious snacks/meals, academic enrichment, college and career preparation, mentorship, team sports and physical activity, family engagement, family literacy, and more.

Texas partners with 28 local agencies that operate the Community In Schools programs. The mission of Communities In Schools (CIS) in Texas is to surround students with a community of support, empowering students to stay in school and achieve in life. The CIS model is designed to keep students persisting in education and ultimately graduate from high school. CIS partners with educators, students, and parents to identify needs of students who are at-risk of dropping out of school. Once the needs are identified, CIS customizes supports for students and families and provides individual case management services, engaging the community as part of this process. CIS monitors student level data and tracks education outcomes for those students served. CIS in Texas has six components:

- Health and human services- including mental health and basic needs
- Supportive guidance and counseling- both individual and group, and crisis response
- Parental and family engagement- including home visits and consultation
- Academic enhancement and support- including tutoring and extended learning time
- College and career awareness- including preparation and transition
- Enrichment activities- including mentoring and school engagement activities

#### **iv. will be provided with appropriate accommodations; and**

In Texas, a student's eligibility for special education services and most of the major decisions about a student's special education program are made by an admission, review, and dismissal committee. This group is also referred to as an individualized education program (IEP) team, which is the term used in federal law. CTE representatives are required to be included on this team when the child is placed in a CTE course. If the student is identified as an English learner, the ARD committee must work in conjunction with the language proficiency assessment committee (LPAC) to determine appropriate entry and exit criteria for Bilingual Education or English as a Second Language program.

An ARD committee must be formed to review and determine whether a student is eligible for special

education and related services. The ARD committee members include the following:

- the guardian;
- at least one regular education teacher of the student who must, when possible, be a teacher who is responsible for implementing a portion of the student's IEP;
- at least one special education teacher or provider for the student;
- a representative of the school;
- a person who can interpret the instructional implications of the evaluation results;
- other individuals who have knowledge or special expertise regarding the student and are invited by either the guardian or the school;
- whenever appropriate, the student;
- to the extent appropriate, with guardian's written consent or, after the child reaches age 18, with the adult student's written consent, a representative of any participating agency that is likely to be responsible for providing or paying for transition services;
- the ARD committee shall include a representative from career and technical education, preferably the teacher, when considering initial or continued placement of a student in a career and technical education program.
- a professional staff member who is on the language proficiency assessment committee, if the child is identified as an English learner.

The ARD committee also includes, as applicable:

- a teacher who is certified in the education of students with auditory impairments, if the child has a suspected or documented auditory impairment;
- a teacher who is certified in the education of students with visual impairments, if the child has a suspected or documented visual impairment; or
- a teacher who is certified in the education of students with visual impairments and a teacher who is certified in the education of students with auditory impairments, if the child has suspected or documented deafness-blindness.

In addition, the ARD committee must address special factors for some students, as follows:

- consider the use of positive behavioral interventions and supports, and other strategies, to address behavior that impedes learning;
- consider the language needs of the student as those needs relate to the student's IEP when the student qualifies as a student with limited English proficiency; provide for instruction in braille and the use of braille, unless the committee determines that instruction in braille or the use of braille is not appropriate for the student when the student is blind or visually impaired;
- consider the communication needs of the student, and for the student who is deaf or hard of hearing, consider the student's language and communication needs, opportunities for direct communications with peers and professional personnel in the student's language and communication mode, academic level, and full range of needs, including opportunities for direct instruction in the student's language and communication mode; and
- consider whether the student needs assistive technology devices and services.

THECB performs oversight of public, two-year community, state, and technical colleges for compliance with federal civil rights statutes and their implementing regulations. THECB conducts a biannual risk assessment using a targeting plan approved by the Department of Education's Office of Civil Rights (OCR)

and conducts two site visits annually based on risk assessment outcomes.

**v. will be provided instruction and work-based learning opportunities in integrated settings that support competitive, integrated employment. (Section 122(d)(9) of Perkins V)**

Work-based learning is included in each program of study. The expectation from the TEA is that all students will have access to work-based learning experiences, including students with disabilities. LEA's (including the Texas School for the Blind and Visually Impaired and the Texas School for the Deaf) should provide professional development activities for CTE teachers, paraprofessionals, counselors, administrators, and special education teachers related to curriculum modification, equipment modification, classroom modification, supportive personnel, and instructional aids and devices.

The Workforce Innovation and Opportunity Act (WIOA) requires that pre-employment transition services, including work-based learning experiences, be made available to students with disabilities in need of such services who are eligible or potentially eligible for Vocational Rehabilitation (VR) services. WIOA requires coordination of services to promote career readiness, secondary school completion, entry into postsecondary education, and postsecondary credentials aligned with in-demand industry sectors. In addition to WIOA funding, Texas LEA's are also able to access Every Student Succeeds Act (ESSA) and Individuals with Disabilities Education Act (IDEA) funds to promote and implement CTE programs. Work-based learning experiences may include a continuum of experiences such as: in-school or after school opportunities, or experiences outside the traditional school setting (including internships), summer and year-round employment, pre-apprenticeship, on-the-job training, job shadowing, or simulated experience.

Partnerships with State agencies, including State educational agencies and State VR agencies, schools, worksites, businesses, families and community organizations, and communities can create opportunities to develop transferrable skills to prepare for postsecondary education and employment. Work-based learning experiences with appropriate site-based supervision provide opportunities for assessing abilities and strengths outside the classroom. Participation in job-related tasks provides a chance to explore how to communicate disability-related work support and accommodation needs, if necessary. This information can be referenced in the Federal Partners in Transition- What to know About Work-Based Learning Experiences document found in TEA Appendix 9.

#### **4. Preparing Teachers and Faculty**

**a. Describe how the eligible agency will support the recruitment and preparation of teachers, including special education teachers, faculty, school principals, administrators, specialized instructional support personnel, and paraprofessionals to provide career and technical education instruction, leadership, and support, including professional development that provides the knowledge and skills needed to work with and improve instruction for special populations. (Section 122(d)(6) of Perkins V)**

The TEA Career and Technical Education department provides supports at the state leadership level to assist LEAs with the recruitment of CTE teachers which is evident in the broad approach by which the agency assists with routes to hire qualified candidates. This process aligns with the overall agency philosophy as expressed in strategic priority one: recruit, support, and retain teachers and principals.



Within the State’s specific action items to achieve priority one, several intertwine with the CTE departments efforts to recruit CTE teachers. This is accomplished by strengthening the teacher pipeline every step of the way and supporting the development of principals through the following initiatives:

- Build a robust pipeline of effective teachers in hard-to-staff regions by incentivizing districts and ESCs to pursue innovative “Grow Your Own” teacher recruitment initiatives. Districts implementing “Grow Your Own” strategies will ensure the quantity, quality, and diversity of teacher pipelines for generations to come.
- The TEA redesigned the teacher certification framework with a focus on increasing the rigor, relevancy, reliability, and validity of the certification assessments by introducing assessments that place a greater emphasis on valid, authentic practice (especially in content pedagogy). A more rigorous certification assessment and process will help ensure an excellent teacher in every classroom by facilitating the transformation of teacher preparation programs to meet this new higher, more relevant standard.
- The TEA completed a comprehensive redesign of the principal certification framework with a focus on instructional leadership and competency-based indicators. Similar to the intent of the teacher certification redesign, a more rigorous principal certification assessment will have the effect of ensuring a world-class principal in every school by accelerating the transformation and continuous improvement of principal preparation programs to meet this standard which is more grounded in what we know is required from administrators to improve student outcomes.
- Created the Trades and Industrial Workforce Training: Grades 6-12 certificate due to the condensed number of preparation hours for teacher candidates. The TEA staff worked with a standards advisory committee to narrow and prioritize the standards for beginning teachers. In addition, TEA staff and the advisory committee sought to further prioritize the standards needed to meet the needs of students in trade and industrial education courses and consider the entry point of teacher candidates.
- Allowed career and technology teachers employed for at least 50% of the time in an approved career and technology position to count up to two years of work experience for salary increment purposes if the work experience was required for career and technology certification.

Other statewide initiatives that impact the recruitment of CTE teachers allow districts the autonomy to meet local instructional needs by providing a pathway for the hiring of candidates with industry experience. Within the “District of Innovation” state legislative act, an allowable exemption by district application is the flexibility to develop an educator certification process independent of state

requirements. The School District Teacher Permit also allows districts to autonomously hire individuals with industry experience to teach CTE courses. District of Innovation and the School District Teaching Permit requires candidates to have:

1. Relevant college/university coursework in the subject area taught
- Or
2. Relevant experiences related to the subject area to be taught.

The development of CTE specific recruitment strategies of qualified candidates will be enhanced with the establishment of collaborative relationships with industry partners, professional industry organizations, and military organizations within the state. The TEA encourages LEAs to engage professional organizations by listing the opportunities available in secondary education through the organization's communications mediums. Promoting the organizations involvement in the career pipeline in the K-12 environment as an opportunity to enhance professional standards through improved instruction by industry experts which leads to increased entry level skill attainment. The recent passage of House Bill 3 included a teacher incentive allotment that will assist with teacher recruitment and retainment that will provide funding based upon additional teacher credential attainment.

Military recruitment engagement activities include providing access to military spouses who are education professionals and aligning military occupational specialties of veterans exiting service with teaching careers in Texas and promoting the information at armed forces alumni centers. Recruitment activities with the "Troops to Teachers" program which trains retiring veterans, will inform this highly qualified population about CTE teacher positions in Texas.

Teacher preparation, once qualified candidates have been successfully recruited, determines the depth and breadth of a CTE teacher's career. Working with educator preparation programs, LEAs, and teacher organizations to identify best practices for initial training, first year supports, and sustained support of CTE teachers the state agency will guide the dissemination of the selected strategies. New teacher training that provides the basic elements of being a new CTE teacher to include teaching strategies for special needs students, differentiating learning, engaging instructional strategies, and employability skills will be developed offered to districts by using a regional distribution delivery model.

Administrative leadership in CTE is comprised of two distinct categories, CTE administrators and campus/district administrators who work in consort to guide CTE programs. The TEA gathered the input of school principals and LEA administrators by conducting a statewide listening tour that offered direct messaging and feedback sessions with agency members. Professional development training on best practices for completing local needs assessments, supportive strategies for program sustainment, resources to use for master scheduling and long-term planning, and metrics to determine program success by student sub-population will be provided by agency leadership. The TEA CTE team will facilitate development of an administrative tool kit that will be available as a virtual module and in-person training session.

The TEAs creation of resources for faculty, such as counselors and career coordinators, informs the selection of a program of study that culminates in the completion of an industry-based certification or a work-based learning opportunity.

School counselors in Texas will receive training on Perkins V updates and programs of study implementation procedures to improve the quality of advisement students receive at the secondary and middle school level.

The development of training modules for support personnel to provide a perfunctory knowledge of the CTE course in which support is offered provides an expansion of accessibility to special population students. Support personnel are not expected to have the content expertise of the classroom teacher; however, adequate supports can be provided with a working knowledge of project goals and student expectations. The TEA CTE department will provide virtual training modules which will increase access and availability to Texas LEA support personnel.

Teacher, counselor, administrator, and support personnel preparation which includes instructional strategies for special population students, providing resources for counselors to inform the selection of a career pathway by special population students and their families, training the support personnel needed

for individual student success, and developing a professional development system that maintains and improves upon the knowledge and skills required to work with special populations is an instructional environment designed for the success of all students. The TEA is contracting with an outside entity to work professional development for CTE teachers and administrators. The CTE 101 training module will review the standard elements of a CTE program and incorporate training on equity and access. The work-based learning toolkit will provide guidance on conducting an effective extended learning experience for students, high-quality implementation strategies, and the roles and responsibilities of school administrators and staff.

**College, Career and Military Readiness Professional Development**

Professional Development	2020-2021	2021-2022	2022-2023	2023-2024
CTE Administrator	Content Development	Training Rollout	Resources Available	Resources Available
Counselor	Content Development	Training Rollout	Resources Available	Resources Available
CTE Educator	Content Development	Training Rollout	Resources Available	Resources Available
CTE Special Populations	Content Development	Training Rollout	Resources Available	Resources Available
CTE Work-Based Learning	Training Rollout	Resources Available	Resources Available	Resources Available
CTE Special Education	Content Development	Content Rollout	Ongoing Support and Updates	Ongoing Support and Updates
STEM	Content Development		Training Rollout	Ongoing Training
CCRSM Advisor	Content Development	Training Rollout	Ongoing Training	Ongoing Training
CCRSM Blueprint Tool Kit	Training Rollout	Ongoing Training	Ongoing Training	Ongoing Training
P-TECH Leadership Training	Content Development	Training Rollout	Ongoing Training	Ongoing Training
CCRSM Administrator and Teacher Postsecondary Rigor Training	Ongoing Training	Ongoing Training	Ongoing Training	Ongoing Training
TRPN Cross Planning Time Training	Training Rollout	Ongoing Training	Ongoing Training	Ongoing Training
Career Readiness Middle School Curriculum Training	Training Rollout	Training Implementation Monitoring	Training Implementation Monitoring	Training Implementation Monitoring
Effective Advising Framework Training	Training Rollout	Ongoing Training	Training Implementation Monitoring	Training Implementation Monitoring

Postsecondary institutions budget Perkins formula funds for professional development for career and technical education faculty and student support staff. Professional development supports ongoing faculty disciplinary training to maintain curricula and required certifications. For faculty and student support staff, professional development reinforces the knowledge and skills needed to improve instruction, enhance advisement and support, mitigate barriers for special populations students.

## C. FISCAL RESPONSIBILITY

### 1. Describe the criteria and process for how the eligible agency will approve eligible recipients for funds under this Act, including how—

#### a. each eligible recipient will promote academic achievement;

Eligible applicants whose grant allotment is equal to or greater than \$15,000 must submit a Perkins V local application to receive federal funds. An eligible applicant whose grant allotment is less than \$15,000 may still participate in the grant allotment by forming a consortium/shared services arrangement (SSA) with other LEAs or a regional education service center to meet the minimum grant requirement of \$15,000. (See Shared Services Arrangements.) An eligible applicant may apply for a waiver as a rural, sparsely populated area or as a charter school that is not able to join an SSA. Evidence must be presented to justify the waiver request.

The following eligibility requirements also apply:

- The TEA reserves the right not to award a grant to an eligible applicant that is identified by the TEA as a high-risk grantee.
- The applicant must be in compliance with submitting the annual audit to the TEA, as described in the General and Fiscal Guidelines.

Each LEA will complete a Comprehensive Local Needs Assessment (CLNA) that will inform the local application for funding biennially.

See TEA Appendix 7 for the Perkins V Local Application, and TEA Appendix 8 for the CLNA.

THECB requires that its 54 eligible postsecondary institutions submit a Perkins V Local Application to receive federal funds. The Local Application requires that institutions identify specific activities for meeting each core indicator or performance. Each institution submits biannual progress reports that show progress on each activity or, for activities with no progress, how the institution plans to respond for improvement. All programs of study supported with Perkins funds meet the requirements of THECB's Guidelines for Programs in Workforce Education (GIPWE) described in Section B.2.b.

For the 2020-2021 program year, institutions will perform a Comprehensive Local Needs Assessment (CLNA). Institutions report findings to THECB in a CLNA report, summarize those findings in the Local Application, and address findings through the targeted use of Perkins formula funds as a condition of receiving Perkins formula funding as a condition of receiving Perkins formula funding.

#### b. each eligible recipient will promote skill attainment, including skill attainment that leads to a recognized postsecondary credential; and

All state-recognized programs of study will lead to a postsecondary credential or degree. Program of study frameworks, located in Appendix 4 demonstrate the multiple entry and exit points for credential attainment. The TEA tracks credential attainment through PEIMS reporting as well as data sharing agreements with THECB. These reports are currently made available in the Texas Academic Performance Reports (TAPR) system.

Additionally, the State's accountability plan for ESSA aligns with college and career readiness benchmarks providing credit to districts who have students who earn one of the measures listed below. LEAs and schools receive A-F grades. One factor evaluated is their score on college and career readiness, and these grades are reported publicly.

- meet criteria of 3 on AP or 4 on IB examinations
- meet TSI criteria (SAT/ACT/TSIA/College Prep course) in reading and mathematics
- complete a course for dual credit (9 hours or more in any subject or 3 hours or more in ELAR/mathematics)
- earn an associate degree

- complete an OnRamps course
- earn an industry-based certification
- graduate with completed IEP and workforce readiness (graduation type code of 04, 05, 54, or 55)
- enlist in the United States Armed Forces
- earn a level I or level II certificate
- graduate under an advanced degree plan and be identified as a current special education student

To incentivize LEA's to promote academic and skill attainment, the CCMR outcomes bonus allows districts to earn additional funds for preparing graduates for college, a career, or the military. CCMR outcomes bonuses will be paid for each annual graduate above a certain threshold. The bonuses apply to the following populations:

- Economically Disadvantaged: \$5,000 for each CCM-Ready economically disadvantaged annual graduate above a threshold.
- Non-Economically Disadvantaged: \$3,000 for each CCM-Ready non-economically disadvantaged annual graduate above a threshold.
- Special Education: \$2,000 for each CCM-Ready annual graduate enrolled in special education.

The CCMR bonus uses a more rigorous standard for CCMR than the academic accountability system:

**College:**

- Texas Success Initiative (TSI) score on SAT/ACT/TSI Assessment (TSIA) and
- Earned an associate degree prior to graduation or enrolled in college by the fall immediately after high school graduation

**Career:**

- TSI score on SAT/ACT/TSIA and
- Received an industry-based certification / Level I / Level II certificate

**Military:**

- Armed Services Vocational Aptitude Battery (ASVAB) passing score and
- Enlisted in U.S. Armed Forces after graduation

The purpose is to further the goal set under the state's plan for higher education developed under Texas Education Code (TEC) §61.051 for at least 60 percent of all adults aged 25 to 34 in Texas to achieve a postsecondary degree or workforce credential by 2030. House Bill 3 CCMR incentives are directly aligned with the Texas Education Agency strategic plan that every child is prepared for success in college, career, or the military.

All postsecondary programs of study supported with Perkins funds will meet the requirements of THECB's Guidelines for Programs of Study in Workforce Education (GIPWE) described in Section B.2.b. GIPWE requires the following program development and maintenance conditions to ensure technical skills attainment for students:

- Documentation of a robust job market;
- Alignment of curricula with the requirements of accrediting entities;
- The incorporation of work-based learning/capstone experiences; and
- Ongoing consultation with an industry advisory committee.

**c. each eligible recipient will ensure the local needs assessment under section 134 takes into consideration local economic and education needs, including, where appropriate, in-demand industry sectors and occupations. (Section 122(d)(5) of Perkins V)**

Texas defines high-wage as \$35,339, the annual median salary for Texas in 2017 based on the Texas Workforce Commission's workforce projections as well as real time labor data from Emsi through the 2020-2021 school year.

In secondary education, Texas defines high-skill as a program of study demonstrating multiple entrance and exit points into careers including industry-based certifications, postsecondary level one and level two certifications from a technical college or community college, an associate degree, and a bachelor's degree to ensure program of study sequences are continual and not job terminal.

Texas defines in-demand as having greater than 17% annual growth (2017 Texas median growth) based on the Texas Workforce Commission's workforce projections as well as real time labor data from Emsi.

Statewide labor market data does not support offering all CTE course sequences at every high school across Texas. Each year, local education agencies with labor market data to support regional programs of study may apply for additional course sequences. The application will require the submission of labor market data that validates the occupations and course sequence of the proposed program of study being aligned with regional needs for high-wage, high-skill, and in-demand careers.

In spring of 2020 for the 2020-2021 school year, LEAs will submit a Comprehensive Local Needs Assessment (CLNA) per the Perkins V process. This is to describe LEA CTE offerings, student benefits of CTE offerings and results of CTE offerings.

LEAs will be trained on how to complete the Perkins V local application for funding and the comprehensive local needs assessment during the fall of 2019 and spring of 2020 to support the submission of their application. Eligible recipients must biennially submit a Perkins V local application to receive Perkins funds. Local applications for secondary and postsecondary institutions must meet all the elements required in the Perkins Act. Eligible recipients must complete an online application and provide all information required prior to funding approval. Each application is reviewed to determine compliance with all legal requirements.

The local applications for both secondary and postsecondary institutions must provide performance targets and strategies for continuous improvement of academic achievement and technical skill attainment. Current and emerging occupational opportunities are identified through the analysis of statewide and regional data provided by the local workforce development boards and/or through labor market and career information made available through TWC. The TEA will provide regional labor data dashboards defining where the region has high-wage, in-demand occupations as a resource for completing the CLNA.

THECB's guidelines, template, and supportive resources for the postsecondary Comprehensive Local Needs Assessment (CLNA) require that institutions consult regional employers and industry groups to identify regional workforce needs. Institutions must also independently document workforce needs through state, regional, or local labor market data. THECB has provided labor market data resources to institutions.

**2. Describe how funds received by the eligible agency through the allotment made under section 111 of the Act will be distributed—**

**a. among career and technical education at the secondary level, or career and technical education at the postsecondary and adult level, or both, including how such distribution will most effectively provide students with the skills needed to succeed in the workplace; and**

Texas allocates Perkins Basic Grant funds between secondary and postsecondary programs under a funding split that is based on the number of CTE students served at the secondary and postsecondary level. The Texas State Board of Education (SBOE) approved the Texas state plan for Career and Technical Education, with a funding split of seventy percent for secondary programs and thirty percent for postsecondary programs. Texas uses Title I, Part B funds as follows: at least eighty five percent will be distributed by formula allocation to LEAs and community and technical colleges through the standard application system (SAS); ten percent will fund state programs and state leadership projects, and no more than five percent will fund administration of the state plan. Fifteen percent of the distributed formula allocation will be set aside for Perkins Reserve Grants.

Texas distributes funds supporting state programs and leadership projects through the request for application (RFA) process. Texas awards funds through the SAS to the Texas Juvenile Justice Department and the Windham LEA, which operate CTE programs in correctional institutions. In 2019-2020, the Texas School for the Deaf and the Texas School for the visually impaired were funded from the 1.5 percent set aside for institutions. Boys Ranch ISD is awarded funds through the SAS. THECB supports the Southwest College for the Deaf, a campus of Howard College, through a Perkins formula funding grant to Howard College.

THECB requires each eligible postsecondary recipient to submit a local application that develops a detailed description of a college's local program and how it will meet the requirements of Section 134(a) and (b). The postsecondary local application includes an evaluation plan that sets forth a college's activity plan for each core indicator, including measurable, locally determined performance targets for each activity.

**b. among any consortia that may be formed among secondary schools and eligible institutions, and how funds will be distributed among the members of the consortia, including the rationale for such distribution and how it will most effectively provide students with the skills needed to succeed in the workplace. (Section 122(d)(8) of Perkins V)**

The required elements for local Perkins plans related to consortia (called Shared Service Agreements in Texas) are integrated into the Perkins eGrant application, enabling consortia to complete the Comprehensive Local Needs Assessment (CLNA) and Perkins V local application through electronic submission. Consortia members are required to complete four sections of the CLNA (sections 1,2,4, and 7). The fiscal agent is required to complete the remaining sections (sections 3,5, and 6). Fiscal agents apply to the TEA for security clearance to submit a consortium application and are provided a username, password, and electronic signature. Districts must also submit information regarding their decision to participate in a specific consortium. The TEA Grants Administration review the consortium applications and, as needed, request additional information or clarification from the fiscal agent using text fields where the TEA staff may include negotiation notes or comments about the consortium application and plan. When the TEA staff members are satisfied with the information the fiscal agent has submitted, they approve the application. The Commissioner of Education must provide final approval of the application, and his electronic signature appears on the notice of grant award (NOGA) that is available electronically to the school district. The Perkins eGrant application/plan provides more guidance to districts for meeting the Perkins V requirements and focusing on continuous program improvement. Information about the application and supporting documentation is available at <http://burleson.tea.state.tx.us/GrantOpportunities/forms/GrantProgramSearch.aspx>.

Districts that are eligible for a federal Perkins allocation of less than \$15,000 are not eligible for direct receipt of Perkins funds, so they must participate in a consortium of districts with a total combined consortium allocation of \$15,000 or greater. The consortium determines a fiscal agent, which could be an ESC CTE specialist, school district or an institution of higher education that is a member of the consortium. The members of the consortium jointly determine the method for deciding consortium activities and funding priorities. For Perkins funding purposes, each consortium is treated like a single LEA. The formula for determining a consortium's Perkins allocation is identical to the formula applied to other LEAs that are eligible for Perkins funds. Members of a consortium reach agreement upon the mutually-beneficial programs and purposes that Perkins funds will support. Members will describe the purposes and programs in the formula grant application. The TEA only approves the grant application after the allocation of Perkins resources to meet the mutually-beneficial purposes and serve the needs of consortium members is agreed upon.

**3. For the upcoming program year, provide the specific dollar allocations made available by the eligible agency for career and technical education programs and programs of study under section 131(a)-(e) of the Act and describe how these allocations are distributed to local educational agencies, areas career and technical education schools and educational service agencies within the State. (Section 131(g) of Perkins V)**

Texas allocates Perkins Basic Grant funds between secondary and postsecondary programs under a funding split that is based on contact hours. On November 16, 2007, the SBOE approved the Texas State Plan for Career and Technical Education, 2008-2013 with a funding split of 70% for secondary programs and 30% for postsecondary programs. Texas uses Title I, Part B funds as follows: at least 85% will be distributed by formula allocation to LEAs and community and technical colleges through the standard application system (SAS); 10% will fund state programs and state leadership projects, and no more than 5% will fund administration

of the state plan. The estimated formula amount for secondary and postsecondary for 2020-2021 will be \$96,576,587.75 with the Perkins Reserve amount of 15% at \$14,486,488.16.

THECB funds to eligible postsecondary subrecipients are determined via an allocation process that calculates each subrecipient's Pell-eligible, full-time student equivalents (FTSE) as a percentage of the state's total number.

**4. For the upcoming program year, provide the specific dollar allocations made available by the eligible agency for career and technical education programs and programs of study under section 132(a) of the Act and describe how these allocations are distributed to eligible institutions and consortia of eligible institutions within the State.**

Local Education Agencies and public, two-year community, state, and technical colleges will be eligible for federal Perkins funds upon completion of the Comprehensive Local Needs Assessment and the Perkins Local Application. LEAs that are eligible for the Perkins allocation in 2020-2021 will receive an estimated amount of \$57,463,069.71. Postsecondary institutions will receive an estimated amount of \$24,627,029.88

Additionally, 1.5% of Perkins funds are set aside for eligible institutions as follows:

Eligible Institution	2018-2019	2019-2020	2020-2021
Texas Juvenile Justice System	\$184,120.00	\$319,070.12	\$319,070.12
Texas School for the Deaf	\$31,104.00	\$39,706.80	\$39,706.80
Texas School for the Visually Impaired	\$0	\$15,000.00	15,000.00
Windham LEA	\$837,388.00	\$1,300,258.04	1,300,258.04
Boys Ranch ISD	\$15,500.00	\$15,500.00	\$15,500.00

The state institutions use Perkins funds to provide CTE programming to assist students in building careers through quality instruction, preparation for industry-based certifications, and development of career connections. For example, the Windham School District tailors CTE programs to provide relevant and marketable employability skills to its students, taking into consideration the impact a previous felony conviction has on the ability of residents to secure certifications, licensure, and employment.

**5. Describe how the eligible agency will adjust the data used to make the allocations to reflect any changes in LEA boundaries that may have occurred since the population and/or enrollment data was collected, and include local education agencies without geographical boundaries, such as charter schools and secondary schools funded by the Bureau of Indian Education. (Section 131(a)(3) of Perkins V)**

Each year, Texas adjusts district allocations to reflect the changes that occurred in district enrollment due to charter schools opening or closing in the district's geographical boundaries.

**6. If the eligible agency will submit an application for a waiver to the secondary allocation formula described in section 131(a)—**

- a. include a proposal for such an alternative formula; and**
- b. describe how the waiver demonstrates that a proposed alternative formula more effectively targets funds based on poverty (as defined by the Office of Management and Budget and revised annually in accordance with section 673(2) of the Community Services Block Grant Act (42 U.S.C. 9902(2)) to local educational agencies with the State. (Section 131(b) of Perkins V)**

**Also indicate if this is a waiver request for which you received approval under the prior Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV).**

No alternative formula is proposed for secondary or postsecondary allocations at the time of the plan submission.

**7. If the eligible agency will submit an application for a waiver to the postsecondary allocation**

**formula described in section 132(a)—**

- a. include a proposal for such an alternative formula; and**
- b. describe how the formula does not result in a distribution of funds to the eligible institutions or consortia with the State that have the highest numbers of economically disadvantaged individuals and that an alternative formula will result in such a distribution. (Section 132(b) of Perkins V)**

**Also indicate if this is a waiver request for which you received approval under the prior Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV).**

No alternative formula is proposed for secondary or postsecondary allocations at the time of the plan submission.

**8. If the eligible agency will award reserve funds to eligible recipients under section 112(c) of Perkins V, describe the process and criteria for awarding those funds.**

The Texas Education Agency will distribute reserve grant funds to eligible LEAs through an application process. Awarded funds must be used as described in the Carl D. Perkins Career and Technical Education Act of 2006, Public Law (P.L.) 109-270, Title I, Part C, Section 135 (local uses of funds). Eligible recipients must meet at least one of the criteria below:

- Local career and technical education (CTE) programs in rural areas.
- CTE programs with high numbers of CTE concentrators or participants. An LEA with 200 or more CTE concentrators in Grades 9–12 is considered an LEA with high numbers of CTE students.
- CTE programs with high percentages of CTE concentrators or participants. An LEA with 25 percent or more of the total student population in Grades 9–12 who are CTE concentrators is considered a high percentage LEA.
- CTE programs in areas with disparities or gaps in performance as described in the Strengthening Career and Technical Education Act of 2018, Section 113 (b)(3)(C)(ii)(II).

Texas faces a significant challenge in helping students become career and college ready in ways that address both current and future workforce needs. Preparing students to enter community colleges and universities and supporting them through the completion of certificates and degrees will help support social and economic mobility for all Texans. Partnerships with institutions of higher education can be used to provide opportunities for students to acquire dual credit, industry-based certifications, and degrees in high-wage and in-demand occupations in regional industry sectors. In addition to partnerships with technical colleges, community colleges and/or universities, LEAs should also work with industry and local stakeholders to assess local workforce needs and coordinate with these partners to promote postsecondary success. LEAs can make a greater effort to establish public/private partnerships, and increase the opportunities for paid internships, apprenticeships, and mentorships, especially focusing on jobs in information technology, manufacturing, health care, construction, transportation distribution and logistics, and other high-wage and in-demand fields (from Prosperity Requires Being Bold: Integrating Education and the Workforce for a Bright Texas Future: The Tri-Agency Report to the Office of the Governor from the Texas Education Agency, Texas Higher Education Coordinating Board, and the Texas Workforce Commission).

The grants will be awarded in two focus areas:

**Focus Area 1 - Texas Regional Pathways Network**

The purpose of Texas Regional Pathways Network (Focus Area 1) is to assist regions with providing high quality college and career pathways that are aligned with regional workforce needs. This grant is designed to support regional teams in planning and implementing high-quality college and career pathways aligned to regional workforce needs. Successful applicants will join the Texas Regional Pathways Network, which provides support to regions across the state that are developing college and career pathways. Regions in the Texas Regional Pathways Network commit to developing pathways that include the seven key components of high-quality college and career pathways.

1. Alignment with high wage, in-demand labor market information (greater than \$35, 339 annual salary and greater than 17% growth for the state)

2. Links between secondary and postsecondary education with multiple entry and exit points
3. Credentials and degrees with value in the labor market
4. Integration of rigorous academic and career-focused learning
5. Strong college and career advising and counseling supports
6. Continuum of work-based learning experiences
7. Cross-sector partnerships

Applicants must include a regional team consisting of the following individuals to be qualified for the grant:

- An intermediary which will convene the above stakeholders as well as community and regional stakeholders who are crucial to implementing the key component of the Texas Regional Pathways Network
- A minimum of three LEAs in the region;
- A minimum of one public institution of higher education;
- A minimum of two employers in areas aligned to regional labor market data;

The pathways should help accelerate completion of training in high wage, in-demand fields and make postsecondary credentials more accessible and affordable by aligning secondary programs of study to postsecondary programs and developing transfer agreements with institutions of higher education in the region. A list of postsecondary programs of study can be found [here](#). LEAs should ensure the courses count toward certificate or degree programs. (demonstrating multiple entrance and exit points into postsecondary and the workforce). Grant funds may be used to support regionally aligned college and career pathways by collaborating between intermediaries, LEAs, institutions of higher education, industry partners or other non-profits to conduct activities to:

- dedicate personnel intermediary support aligned to regional cross-sector partnerships and operational priorities
- dedicate personnel to support development of inter-district career and technical, advanced academic, advising, financial, and transportation partnerships
- select approved technical assistance partners to support implementation of fidelity of implementation rubric
- ensure high quality CTE programs of study reflect regional labor market information
- provide agreements and/or inclusion of advanced academics within the pathway such as dual credit, AP, IB, etc.
- purchase equipment for CTE programs of study which have been aligned to regional labor market information
- conduct industry-led regional labor market analyses and reverse curriculum mapping
- dedicate personnel to expand employer partnerships tied to work-based learning and career exploration
- provide or expand parent and student facing resources to increase student awareness of in-demand industries

Applicants must include an analysis of regional labor market information (aligned with the Texas Workforce Commission's Workforce Development Board Areas) and provide plans for how they are ensuring alignment between labor market information and secondary CTE program of study offerings.

TEA staff will monitor all grant goals, objectives, and activities and review all grant outcomes. TEA staff will conduct regular program update meetings with grantees, for review and planning associated with grant

activities. Grantees will be required to submit interim reports, developed by TEA, detailing the progress of the project. Grantees will also be required to attend 1-2 in-person conferences aimed at providing robust technical assistance, peer resource sharing and networking, and regional team planning time. Grantees permitted to use grant funds to assist in the travel costs associated with these events.

## Focus Area 2 - Texas Regional Pathways Network Implementation Grant

The purpose of focus area 2 is to expand participating LEAs partnering to provide CTE program of study that spans secondary and postsecondary education and includes an appropriate sequence of courses that are aligned with high wage and in-demand occupations identified by the local regional workforce board. The applicant must expand CTE programs of study that spans secondary and postsecondary education and includes an appropriate sequence of courses that are aligned with high wage and in-demand occupations identified by the local regional workforce board.

- 9. Provide the State’s fiscal effort per student, or aggregate expenditures for the State, that will establish the baseline for the Secretary’s annual determination on whether the State has maintained its fiscal effort and indicate whether the baseline is a continuing level or new level. If the baseline is new, please provide the fiscal effort per student, or aggregate expenditures for the State, for the preceding fiscal year. (Section 211(b)(1)(D) of Perkins V)**

The state-level maintenance of effort (MOE) for Perkins federal funding is listed below. Data sources used are the TEA Statewide Summary of Finance Report (FSP), and aggregate expenditure data and student counts provided by the Texas Higher Education Coordinating Board (THECB). The calculation is made annually in mid-February when THECB makes their data available to TEA. See chart below for prior year data:

Perkins MOE Determination Calculation*	Aggregate	Per Capita
FY 2015	\$2,481,897,225	\$1,598
FY 2016	\$2,674,508,268	\$1,658
FY 2017	\$2,802,287,986	\$1,688
FY 2018	\$2,932,779,038	\$1,718
FY 2019	\$3,084,815,322	\$1,781

\* Funds made available based on TEA and THECB data. Note: Calculation conducted in the subsequent year, e.g. FY 2018 determination calculated in February 2019.

Texas utilized the MOE reset of 5% for the 2019-2020 fiscal year.

## D. ACCOUNTABILITY FOR RESULTS

1. Identify and include at least one (1) of the following indicators of career and technical education program quality—
  - a. the percentage of CTE concentrators (see Text Box 6 for the statutory definition of a CTE concentrator under section 3(12) of Perkins V) graduating from high school having attained a recognized postsecondary credential;
  - b. the percentage of CTE concentrators graduating high school having attained postsecondary credits in relevant career and technical education programs and programs of study earned through a dual or concurrent enrollment program or another credit transfer agreement; and/or
  - c. the percentage of CTE concentrators graduating from high school having participated in work-based learning. (Section 113(b)(2)(A)(iv)(I) of Perkins V)

Texas chose indicator A above which calculates the percentage of CTE concentrators graduating from high school having attained a recognized postsecondary credential. The decision to use this indicator was based on results from public comments and survey results in which 66% of respondents favored this indicator.

A recognized postsecondary credential can be an industry-based certification from the industry-based certification list for public school accountability, Level 1 and Level 2 certificates, along with an associate’s or

baccalaureate degree earned through institutions of higher education.

The 4S1 indicator will be measure by taking Annual graduates who were concentrators and obtained an industry-based certification, Level 1 or Level 2 certificates, an Associate Degree, or a Baccalaureate Degree (P-TECHs) divided by Annual graduates who were concentrators (using annual graduate definition).

**Include any other measure(s) of student success in career and technical education that are statewide, valid, and reliable, and comparable across the State. (Section 113(b)(2)(A)(iv)(II) of Perkins V) Please note that inclusion of “other program quality measure(s) is optional for States.**

An additional measure that Texas will include for secondary data is the percentage of CTE students who meet the definition of a program of study completer. The Texas definition for a CTE completer is a student who completes three or more CTE courses for four or more credits, including one state-determined level 3 or 4 advanced level CTE course. The calculation for the completer measure is the number of completers in a program of study/ number of CTE concentrators in that program of study’s career cluster x 100.

For example, if there were 100 completers in the Entrepreneurship program of study and 500 concentrators in the Business, Marketing, and Finance career cluster, the percentage of completers for the program of study in would be 20%.

Number of Completers by Program of Study

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Number of CTE Concentrators in a Career Cluster

100 Completers of Entrepreneurship Program of Study

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500 Concentrators in the Business, Marketing, and Finance Cluster

**Provide the eligible agency’s measurement definition with a numerator and denominator for each of the quality indicator(s) the eligible agency selects to use.**

5S1 Program Quality- Attained Recognized Postsecondary Credential

5S4 Program Quality- CTE Completer: Number of completers by program of study/Number of CTE concentrators in a career cluster x 100. For example, if there were 100 completers in the Entrepreneurship program of study and 500 concentrators in the Business, Marketing, and Finance career cluster, the calculation of completer for the program of study in this instance would be 20%.

A list of definitions for each quality indicator is available in Section V of this plan.

- 2. Provide on the form in Section V.B, for each year covered by the State plan beginning in FY 2020, State determined performance levels or each of the secondary and postsecondary core indicators, with the levels of performance being the same for all CTE concentrators in the State. (Section 113(b)(3)(A)(i)(I) of Perkins V)**

Updated Perkins V definitions for CTE Concentrators and CTE Completers have been applied to previous collections of CTE student course completion records to establish a baseline level of data.

- 3. Describe the procedure the eligible agency adopted for determining State determined levels of performance described in section 113 of Perkins V, which at a minimum shall include—**
  - a. description of the process for public comment under section 113(b)(3)(B) of Perkins V as part of the development of the State determined levels of performance (see Text Box 7 for the statutory requirements for consultation on State determined performance levels under section 113(b)(3)(B) of Perkins V);**

CTE Stakeholders in Texas had many opportunities to provide feedback through public comment on the development of State determined levels of performance, both in person at Perkins V input meetings held around the state (Listening Tour) and through electronic surveys and emails. The TEA and the THECB solicited

wide ranging input on this topic and many others related to implementing the provisions of Perkins V. Development of State determined levels of performance came from the results of the input described above. Also, as part of the state plan approval process, the agency is providing public comment opportunities to gather further input and feedback. The public comment process is an opportunity for any interested person to submit data or views on a proposed rule. The opportunity for public comment is required by state law,

Texas Government Code, §2001.029. The public comment period on a rule begins when the rule is published as proposed in the Texas Register. For State Board of Education (SBOE) rules, such as the Perkins V state plan, the comment period is at least 31 days and lasts through the next regular SBOE meeting where the SBOE will take second reading action and the public can also provide testimony. All proposed rules of the SBOE are posted on the TEA website after filed as proposed with the Texas Register. The TEA compiles the public comments received during a proposed rule's public comment period and provides those summaries of and responses to the public comments to the appropriate rulemaking body—in this case, the SBOE—for consideration. Texas Government Code, §2001.033, requires the summary of a comment to include the name of the group or association that commented and whether it was for or against the adoption of the rule. Comments from individuals will also be included in the summary of public comments, but individuals will not be named. Texas Government Code, §2001.033 also requires that if the rulemaking body disagrees with the comment, the response to the comment must include the reasons why the rulemaking body disagreed. If the rulemaking body agrees with the comment, it could result in a change to the proposed rule. The summaries of and responses to public comments are included with the adopted rule published in the Texas Register. Working on the baseline data and the planning for data auto-coding that will be used to determine state-determined performance levels has been a team of TEA staff members, including employees from Performance Reporting, College and Career and Military Preparation, CTE, Research and Analysis, and IT. The entire team has worked diligently to make sure that these measures align with the goals and outcomes found in ESSA.

See section D.1.c. for Performance Indicator 5S1 description

See THECB Appendix 2: Postsecondary Statewide Stakeholder Consultation Outcomes

- b. an explanation for the State determined levels of performance that meet each of the statutory requirements in Text Box 8; and**
- c. a description of how the State determined levels of performance set by the eligible agency align with the levels, goals and objectives other Federal and State laws, (Section 122(d)(10) of Perkins V).**

**As part of the procedures for determining State determined levels of performance, describe the process that will be used to establish a baseline for those levels.**

The TEA has developed an auto-coding process that will calculate student participation in CTE programs as participants, explorers, concentrators, or completers, based on course completion. The procedure for determining a baseline for the State determined levels of student performance began with a careful review of the most recent data available on the performance measures found in Perkins V requirements going back to the sixth grade year. In future years, growth in student achievement will be set measuring progress against the baseline data. When conducting the baseline data for core indicators of performance, TEA worked with their Information Technology team, the ESSA accountability team (performance reporting), and the data research and analysis team to ensure alignment between state ESSA requirements and the college, career, and military readiness measures within ESSA.

Updated Perkins V definitions for CTE concentrators and CTE completers have been applied to previous collections of CTE student course completion records to establish a baseline level of data. A CTE concentrator is a student who completes at least two courses for two credits within a program of study. A CTE completer is a student who completes three or more CTE courses for four or more credits, including one state-determined level 3 or 4 (advanced or upper level) CTE course within a program of study. The calculation for the completer measure is the number of completers in a program of study/number of CTE concentrators in that program of study's career cluster x 100.

THECB staff conducted a multi-year analysis of certified postsecondary performance data using model Perkins V core indicator criteria. This analysis guided the development of state-determined performance levels for the Perkins V postsecondary core indicators of performance.

A CTE completer at the postsecondary level is a CTE concentrator who earned a recognized postsecondary credential or exited a community or technical college district and is not found at that community or technical college district in the following fall.

**4. Provide a written response to the comments regarding State determined performance levels received during the public comment period pursuant to section 113(b)(3)(B) of Perkins V. (Section 113(b)(3)(B)(iii) of Perkins V).**

No responses received regarding the State determined performance levels.

**As part of the written response, include a description of any the changes made to the State determined performance levels as a result of stakeholder feedback.**

No changes were made to the State determined performance levels as a result of public comment.

**5. Describe how the eligible agency will address disparities or gaps in performance as described in section 113(b)(3)(C)(ii)(II) of Perkins V in each of the plan years, and if no meaningful progress has been achieved prior to the third program year, a description of the additional actions the eligible agency will take to eliminate these disparities or gaps. (Section 122(d)(11) of Perkins V).**

The TEA will address disparities or gaps in performance in each of the plan years by first reviewing student performance data across the state and district by district. The TEA evaluates and monitors the academic achievement of secondary CTE student concentrators through the state Results Driven Accountability (RDA) system. LEAs are required to analyze performance data, research effective integration strategies, and develop a plan to improve CTE students' academic performance. Improvement plans must include strategies to increase CTE students' academic performance. Examples of effective program improvement strategies include reinforcing rigorous English Language Arts, Mathematics, and Science instruction in CTE curricula; increasing instructional planning time for academic and CTE teachers; and Sheltered Instruction training for academic and CTE teachers to better serve students who are English Learners.

In addition, the TEA will gather additional information about the depth and quality of its CTE programs through the results that come from the CTE Statewide Evaluation project currently underway. The evaluation will provide an analysis of current CTE programs offered around the state focused on student outcomes. The evaluation will include coordinated data files of CTE programs in all Texas LEAs and data analysis of those files. CTE programs will be analyzed by LEA and the findings should explain:

- a. alignment of CTE programs with regional and local workforce needs (e.g., in-demand job opportunities),
- b. outcomes of CTE programs (e.g., course completion, postsecondary enrollment, industry-based credentials earned),
- c. CTE-student preparation for postsecondary opportunities (e.g., college readiness, dual credit completion).

THECB will require postsecondary institutions to address disparities or gaps in performance identified in the Comprehensive Local Needs Assessment (CLNA). The state's 54 community, state, and technical colleges will be required to report findings to THECB in a CLNA report, summarize those findings in the Local Application, and address findings through the targeted use of Perkins formula funds as a condition of receiving Perkins formula funding. Institutions may use Perkins funds to provide mentoring, success coaching elder/childcare services, textbooks, transportation, tutoring, career coaching, access to assistive technology, and other services to reduce performance gaps.

THECB will analyze disaggregated core indicator performance data at the state and institutional level, and will both incentivize institutions and provide technical support to reduce performance gaps. Examples of incentives include statewide recognition of high-performing institutions and merit-based distribution of reallocation funds for successful reduction of performance gaps. Technical assistance to institutions may include statewide training in evidence-based approaches to improving equitable access and individualized assistance to institutions on request or as needs are identified by THECB.

THECB requires biannual progress reports from its 54 community, state, and technical colleges receiving Perkins formula funds. Reports must show progress on each activity in the approved Local Application or address impediments to progress and show how the local institution has responded. Beginning with the FY 2021 Local Application, institutions must commit Perkins formula funds to reducing special populations

performance gaps identified in the (CLNA). Biannual reporting will document programmatic activity toward reducing special populations performance gaps.

THECB will respond to statewide stakeholder input about access and equity with the creation of a discrete award category in its State Leadership program to address disparities or gaps in student performance. THECB awards State Leadership grants to postsecondary institutions through a competitive RFA process to provide general support for reducing performance gaps, including development of innovative curricula, statewide professional development, identification of effective teaching strategies, and scaling of approaches that mitigate barriers to success. The creation of a discrete category targeted on special populations' success will support the development of researched, scalable approaches to improving access and equity to reducing these students' performance gaps.

**As part of the written response, and pursuant to the Report of the Senate Committee on Health, Education, Labor, and Pensions (HELP),<sup>8</sup> the eligible agency could indicate that it will analyze data on the core indicators of performance to identify gaps in performance, explain how they will use evidence-based research to develop a plan to provide support and technical assistance to eligible recipients to address and close such gaps, and how they will implement this plan. The eligible agency is not required to submit a new State plan prior to the third program year in order to address this requirement.**

Support and technical assistance to local districts will come in part as a result of the Comprehensive Local Needs Assessment process. LEAs will be required to evaluate their learners' performance on federal accountability measures, through the review of aggregate and disaggregated student data by race, gender, migrant status, and special populations groups, which are found in Perkins V Section 3(48).

TEA evaluates and monitors the academic achievement of secondary CTE student concentrators through the state RDA accountability system. LEAs are required to analyze performance data, research effective integration strategies, and develop a plan to improve CTE students' academic performance. Improvement plans must include strategies to increase CTE students' academic performance. Examples of effective program improvement strategies include reinforcing rigorous English Language Arts, Mathematics, and Science instruction in CTE curricula; increasing instructional planning time for academic and CTE teachers; and as it pertains to second language acquisition, Sheltered Instruction training for academic and CTE teachers to better serve students who are English Learners.

# III. ASSURANCES, CERTIFICATIONS AND OTHER FORMS

## A. STATUTORY ASSURANCES

- The eligible agency assures that:
  1. It made the State plan publicly available for public comment<sup>9</sup> for a period of not less than 30 days, by electronic means and in an easily accessible format, prior to submission to the Secretary for approval and such public comments were taken into account in the development of this State plan. (Section 122(a)(4) of Perkins V)
  2. It will use the funds to promote preparation for high-skill, high-wage, or in-demand industry sectors or occupations and non-traditional fields, as identified by the State. (Section 122(d)(13)(C) of Perkins V)
  3. It will provide local educational agencies, area career and technical education schools, and eligible institutions in the State with technical assistance, including technical assistance on how to close gaps in student participation and performance in career and technical education programs. (Section 122(d)(13)(E) of Perkins V)
  4. It will comply with the requirements of this Act and the provisions of the State plan, including the provision of a financial audit of funds received under this Act, which may be included as part of an audit of other Federal or State programs. (Section 122(d)(13)(A) of Perkins V)
  5. None of the funds expended under this Act will be used to acquire equipment (including computer software) in any instance in which such acquisition results in a direct financial benefit to any organization representing the interests of the acquiring entity or the employees of the acquiring entity, or any affiliate of such an organization. (Section 122(d)(13)(B) of Perkins V)
  6. It will use the funds provided under this Act to implement career and technical education programs and programs of study for individuals in State correctional institutions, including juvenile justice facilities. (Section 122 (d)(13)(D) of Perkins V.

## B. EDGAR CERTIFICATIONS

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- By submitting a Perkins V State Plan, consistent with 34 CFR 76.104, the eligible agency certifies that:
  1. It is eligible to submit the Perkins State plan.
  2. It has authority under State law to perform the functions of the State under the Perkins program(s).
  3. It legally may carry out each provision of the plan.
  4. All provisions of the plan are consistent with State law.
  5. A State officer, specified by title in Item C on the Cover Page, has authority under State law to receive, hold, and disburse Federal funds made available under the plan.
  6. The State officer who submits the plan, specified by title in Item C on the Cover Page, has authority to submit the plan.
  7. The entity has adopted or otherwise formally approved the plan.
  8. The plan is the basis for State operation and administration of the Perkins program.

## C. OTHER FORMS

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- The eligible agency certifies and assures compliance with the following enclosed forms:
  1. Assurances for Non-Construction Programs (SF 424B) Form (OMB Control No. 0348-0040) - <https://www2.ed.gov/fund/grant/apply/appforms/sf424b.pdf>
  2. Disclosure of Lobbying Activities (SF LLL) (OMB Control No. 4040-0013): [https://apply07.grants.gov/apply/forms/sample/SFLLL\\_1\\_2-V1.2.pdf](https://apply07.grants.gov/apply/forms/sample/SFLLL_1_2-V1.2.pdf)
  3. Certification Regarding Lobbying (ED 80-0013 Form): <https://www2.ed.gov/fund/grant/apply/appforms/ed80-013.pdf>
  4. General Education Provisions Act (GEPA) 427 Form (OMB Control No. 1894-0005): <https://www2.ed.gov/fund/grant/apply/appforms/gepa427.pdf>

# IV. BUDGET

## A. BUDGET FORM

State Name: Texas

Fiscal Year (FY): 2020-2021

Line Number	Budget Item	Percent of Funds	Amount of Funds
1	Total Perkins V Allocation	Not applicable	\$113,619,515
2	State Administration	%	\$5,680,975
3	State Leadership	%	\$11,361,951
4	• Individuals in State Institutions	%	\$1,704,292
4a	- Correctional Institutions	Not required	\$1,300,258
4b	- Juvenile Justice Facilities	Not required	\$319,070
4c	- Institutions that Serve Individuals with Disabilities	Not required	\$54,706
5	• Non-traditional Training and Employment	Not required	\$60,000
6	• Special Populations Recruitment	%	\$13,619
7	Local Formula Distribution	%	\$96,576,587
8	• Reserve	%	\$14,486,488
9	- Secondary Recipients	%	\$10,140,541
10	- Postsecondary Recipients	%	\$4,345,946
11	• Allocation to Eligible Recipients	%	\$82,090,099
12	- Secondary Recipients	%	\$57,463,069
13	- Postsecondary Recipients	%	\$24,627,029
14	State Match <i>(from non-federal funds)</i>	Not applicable	\$

# V. STATE DETERMINED PERFORMANCE LEVELS

## Core Indicators of Performance

Indicator Descriptions	Indicator Codes	Indicator Names	Numerator and Denomination
<b>Secondary Level</b>			
The percentage of CTE concentrators who graduate high school, as measured by the four-year adjusted cohort graduation rate (defined in section 8101 of the Elementary and Secondary Education Act of 1965)	1S1	Four-Year Graduation Rate	Concentrators who started high school 4 years prior to expected 4-year graduating year and graduated high school in four years/Cohort of concentrators who dropped out, graduated, or left; started high school 4 years prior to expected 4-year graduating year
The percentage of CTE concentrators who graduate high school, as measured by extended-year adjusted cohort graduation rate defined in such section 8101.	1S2	Extended Graduation Rate	Concentrators who started high school 4 or 5 years prior to expected 5-year graduating year and graduated high school within five years/ Cohort of concentrators who dropped out, graduated, or left; started high school either 4 or 5 years prior to expected 5-year graduating year
CTE concentrator proficiency in the challenging State academic standards adopted by the State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965, as measured by the academic assessments in reading/language arts as described in section 1111(b)(2) of such Act.	2S1	Academic Proficiency in Reading/ Language Arts	Annual graduates, dropouts, and other leavers who are concentrators and whose best score met or exceeded grade on English II/ Annual graduates, dropouts, GEDs and other leavers who are concentrators and who took (have a scored answer document) both English I and English II
CTE concentrator proficiency in the challenging State academic standards adopted by the State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965, as measured by the academic assessments in reading/language arts as described in section 1111(b)(2) of such Act.	2S2	Academic Proficiency in Mathematics	Annual graduates, dropouts, and other leavers who are concentrators and whose best score met or exceeded grade level on Algebra I/ Annual graduates, dropouts, GEDs, and other leavers who are concentrators and who took (have a scored answer document) Algebra I
CTE concentrator proficiency in the challenging State academic standards adopted by the State under section 1111(b)(1) of the Elementary and Secondary Education Act of 1965, as measured by the academic assessments in science as described in section 1111(b)(2) of such Act.	2S3	Academic Proficiency in Science	Annual graduates, dropouts, GEDs and other leavers who are concentrators and whose best score met or exceeded grade level on Biology/ Annual graduates, dropouts, GEDs and other leavers who are concentrators and who took (have a scored answer document) Biology

Indicator Descriptions	Indicator Codes	Indicator Names	Numerator and Denomination
<b>Secondary Level</b>			
The percentage of CTE concentrators who, in the second quarter after exiting from secondary education, are in postsecondary education or advanced training, military service or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S.C. 12511 et seq.), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are employed.	3S1	Post-Program Placement	Annual concentrators who left secondary education and either: intended to enlist in the military, are employed or, are enrolled in postsecondary education/ Annual concentrators who left secondary education (see definition)
The percentage of CTE concentrators in career and technical education programs and programs of study that lead to non-traditional fields. <sup>10</sup>	4S1	Non-traditional Program Concentration	Annual concentrators who left secondary education and took and passed in a non-traditional course following the business rules/ Annual concentrators who left secondary education
<i>The eligible agency must include at least one program quality indicator—5S1, 5S2, or 5S3—and may include any other quality measure(s) that are statewide, valid, reliable, and comparable across the State.</i>			
The percentage of CTE concentrators graduating from high school having attained a recognized postsecondary credential.	5S1	Program Quality – Attained, Recognized Postsecondary Credential	Annual graduates who were concentrators and obtained an industry-based certification, Level 1 or Level 2 certificates, an Associate Degree, or a Baccalaureate Degree (P-TECHs)/ Annual graduates who were concentrators (using annual graduate definition)
The percentage of graduates who were able to reach completer status for an approved state or regional Program of Study..	5S4	Program Quality – CTE Completers	Annual graduates who were completers at time of exit/ Annual graduates who were concentrators at time of exit
Indicator Descriptions	Indicator Codes	Indicator Names	Numerator and Denomination
<b>Postsecondary Level</b>			
The percentage of CTE concentrators who, during the second quarter after program completion, remain enrolled in postsecondary education, are in advanced training, military service, or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S. C. 12511 et seq.), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are placed or retained in employment.	1P1	Post-Program Placement	Numerator: Number of CTE Concentrators who, in the 2nd quarter after completion (4th quarter/ Fall), are found: 1) enrolled in a higher education institution in TX; 2)employed in TX; 3) in advanced training; 4) in the military; or 5) in a service program.  Denominator: Number of CTE Concentrators who earn a credential or exit an institution/district (are not found in that institution/district in the Fall of the next year)

Indicator Descriptions	Indicator Codes	Indicator Names	Numerator and Denomination
Secondary Level			
<p>The percentage of CTE concentrators who receive a recognized postsecondary credential during participation in or within 1 year of program completion.</p>	2P1	<p>Earned Recognized Postsecondary Credential</p>	<p>Numerator: Number of CTE Concentrators who, within the fiscal year or one year after:</p> <ol style="list-style-type: none"> <li>1) earn a certificate or degree;</li> <li>2) earn certificate of completion of apprenticeship;</li> <li>3) pass a state-recognized licensure exam; or</li> <li>4) pass an industry-recognized certification exam.</li> </ol> <p>Denominator: Number of CTE Concentrators who earn a credential or exit an institution/district (are not found in that institution /district in the Fall of the next year)</p>
<p>The percentage of CTE concentrators in career and technical education programs and programs of study that lead to non-traditional fields.</p>	3P1	<p>Non-traditional Program Concentration</p>	<p>Numerator: Number of CTE Concentrators from underrepresented gender groups who are enrolled in a CTE program that leads to non-traditional field.</p> <p>Denominator: Number of CTE concentrators enrolled in a program that leads to employment in nontraditional fields during the reporting year.</p>

## A. STATE DETERMINED PERFORMANCE LEVELS (SDPL) FORM

State Name: Texas

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Indicators	Baseline Level	FY 2020	FY 2021	FY 2022	FY 2023
Performance Levels					
Secondary Indicators					
1S1: Four-Year Graduation Rate	97.02%	97.02%	97.02%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
1S2: Extended Graduation Rate	processing	2019 baseline	2019 baseline	≥ one standard deviation above baseline	≥ one standard deviation above baseline
2S1: Academic Proficiency in Reading Language Arts	58.13%	58.13%	58.13%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
2S2: Academic Proficiency in Mathematics	47.27%	47.27%	47.27%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
2S3: Academic Proficiency in Science	59.62%	59.62%	59.62%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
3S1: Post-Program Placement	71.21%	71.21%	71.21%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
4S1: Non-traditional Program Concentration	49.68%	49.68%	49.68%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
5S1: Program Quality – Attained Recognized Postsecondary Credential	8.16%	8.16%	8.16%	≥ one standard deviation above baseline	≥ one standard deviation above baseline
5S2: Program Quality – Attained Postsecondary Credits	N/A	N/A	N/A	≥ one standard deviation above baseline	≥ one standard deviation above baseline
5S3: Program Quality – Participated in Work- Based Learning	N/A	N/A	N/A	≥ one standard deviation above baseline	≥ one standard deviation above baseline
5S4: Program Quality – CTE Completers	31.91%	31.91%	31.91%	≥ one standard deviation above baseline	≥ one standard deviation above baseline

Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Indicators	Baseline Level	Performance Levels			
		FY 2020	FY 2021	FY 2022	FY 2023
Postsecondary Indicators					
1P1: Post-Program Placement	82.8%	83.0%	83.2%	83.4%	83.6%
2P1: Earned Recognized Postsecondary Credential	50.6%	50.8%	51.0%	51.2%	51.4%
3P1: Non-traditional Program Concentration	16.7%	17.0%	17.1%	17.2%	17.3%

**Provide any additional information regarding SDPLs, as necessary:**

Based on Perkins V definition changes, TEA conducted a top to bottom review of definitions, sought feedback on core indicators of performance through the statewide listening tour and determined definitions for each core indicator of performance. In section D) 1) a) we discuss the decision on the program quality metrics and why we chose to add an additional measure of 5S4. Since Perkins V significantly changed the definition of a CTE concentrator and because TEA conducted a top to bottom restructure of CTE programs of study which go into effect in the 2020-2021 school year, TEA is proposing two years of baseline data to determine new thresholds for performance growth. Hence, the chart for state determined performance levels reflects two years of baseline data with growth of at least one standard deviation above the baseline starting in year 2021-2022. TEA believes that the auto-coding process now provides a robust data set from which to work; however, this is a shift for districts in how they are sequencing courses as well as the impact that these course sequences and the change in the definition of a CTE concentrator. The two year hold on baseline data allows districts to focus on fidelity of implementation and start students on new course sequences.



# APPENDIX

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## **TEA APPENDIX 1: Perkins V Stakeholder Engagement Meetings**

Perkins V Regional Stakeholder Engagement

Education Service Centers/Regions	Audience/Host Institution	Date
ESC 1 - Edinburg	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	February 27-28, 2019
ESC 2 - Corpus Christi	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	April 16-17, 2019
ESC 3 - Victoria	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	Did not visit during listening tour. Stakeholders participated in Zoom meetings facilitated by ESC 2.
ESC 4 - Houston	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	April 29-30, 2019
ESC 5 - Beaumont	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	February 5-6, 2019
ESC 6 - Huntsville	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	February 19-20, 2019
ESC 7 - Kilgore	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	Did not visit during listening tour. Stakeholders participated in meetings facilitated by ESC 8.
ESC 8 - Mount Pleasant	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	April 2-3, 2019
ESC 9 - Wichita Falls	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	Did not visit during listening tour.
ESC 10 - Richardson	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	March 5-6, 2019
ESC 11 - Fort Worth	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	March 7-8, 2019
ESC 12 - Waco	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	May 7-8, 2019
ESC 13 - Austin	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	April 25-26, 2019
ESC 14 - Abilene	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	January 22-23, 2019
ESC 15 - San Angelo	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	December 11-12, 2018
ESC 16 - Amarillo	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	March 28-29, 2019
ESC 17 - Lubbock	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	1 day session on December 12, 2019. Stakeholders were also invited to participate in meetings facilitated by ESC 16.
ESC 18 - Midland	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	March 26-27, 2019
ESC 19 - El Paso	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	January 17-18, 2019
ESC 20 - San Antonio	School District Educational Professionals, Education Service Center Staff, Higher Education Professionals and Parents	December 4-5, 2018
Southeast	Angelina College	August 22-23, 2019
Central	Austin Community College	September 9, 2019
High Plains/Northwest	Clarendon College	September 11, 2019
Metroplex	Tarrant County Community College	September 19-20, 2019
South	Del Mar College	September 26, 2019
West	Midland College	October 2-3, 2019
Gulf Coast	San Jacinto College District	October 1-15, 2019
Upper East	Tyler Junior College	October 17-18, 2019

Perkins V Stakeholder Engagement

Stakeholder	Stakeholder Type	Date
Texas Workforce Coalition	Business and Industry	November 18, 2019
Texas Association of Manufacturers	Business and Industry	November 18, 2019
Texas Business Association	Business and Industry	October 25, 2019
Metro 8 Chambers of Commerce	Business and Industry	October 31, 2019
Texas Association of Workforce Boards	Business and Industry	December 17, 2019
Texas Chemical Council	Business and Industry	November 18, 2019
Texas Oil and Gas Association	Business and Industry	November 18, 2019
National Federation of Independent Business	Business and Industry	November 18, 2019
Association of Electric Companies of Texas	Business and Industry	November 18, 2019
Associated Builders and Contractors of Texas	Business and Industry	November 18, 2019
Associated General Contractors-Texas Building Branch	Business and Industry	November 18, 2019
Texas Association of Builders	Business and Industry	November 18, 2019
Texas Construction Association	Business and Industry	November 18, 2019
Independent Electrical Contractors of Texas	Business and Industry	November 18, 2019
Texas Hospital Association	Business and Industry	November 18, 2019
Texas Medical Association	Business and Industry	November 18, 2019
Texas Restaurant Association	Business and Industry	November 18, 2019
Texas Motor Transportation Association	Business and Industry	November 18, 2019
Texas Pipeline Association	Business and Industry	November 18, 2019
Association of Chemical Industry of Texas	Business and Industry	November 18, 2019
Texas Food & Fuel Association	Business and Industry	November 18, 2019
Texas Independent Producers and Royalty Owners Association	Business and Industry	November 18, 2019
The Advanced Power Alliance	Business and Industry	November 18, 2019
Texas Association of Realtors	Business and Industry	November 18, 2019
Texas Bankers Association	Business and Industry	November 18, 2019
Mechanical Contractors Association of Texas	Business and Industry	November 18, 2019
National Electrical Contractors Association of North Texas	Business and Industry	November 18, 2019
National Electrical Contractors Association of Southeast Texas	Business and Industry	November 18, 2019
National Electrical Contractors Association of Red River Valley	Business and Industry	November 18, 2019
Plumbing-Heating-Cooling Contractors of Texas	Business and Industry	November 18, 2019
Texas Air Conditioning Contractors Association	Business and Industry	November 18, 2019
Texas Structural Steel Institute	Business and Industry	November 18, 2019
Texas Masonry Council	Business and Industry	November 18, 2019
Permian Basin Petroleum Association	Business and Industry	November 18, 2019
Texas Board of Nursing	Business and Industry	November 18, 2019
Federal Reserve Bank	Business and Industry	January 17, 2019
Apprenticeship and Training Advisory Council	Business and Industry	June 14, 2019
United Way	Community Partners	January 2020
Texas Coalition of Veterans Organizations	Community Partners	August 1, 2019
Military Child Education Coalition	Community Partners	August 1, 2019
Texas Homeless Network	Community Partners	August 1, 2019
Boys and Girls Clubs of Central Texas	Community Partners	August 1, 2019
Texas Alliance of Child and Family Services (Foster Youth)	Community Partners	August 1, 2019
Texas Parent to Parent (advocacy group for people with disabilities)	Community Partners	August 1, 2019
AHEAD in Texas (students with disabilities)	Community Partners	August 1, 2019
Texas Women's Foundation	Community Partners	August 1, 2019
National Association for Women in Construction (Fort Worth)	Community Partners	August 1, 2019
Children's Commission	Community Partners	August 1, 2019
Texas Rio Grande Legal Aid (Foster Youth)	Community Partners	August 1, 2019
Texas Regional Pathways Steering Committee	Education	February 2020
Presentation to CTE Administrators at CTAT	Education Conference	February 13, 2019
Presentation to CTE Administrators at CTAT	Education Conference	July 16, 2019
Education Service Center Region 4 Conference Presentation to CTE administrators, teachers, and counselors	Education Conference	November 7, 2019
Texas Public Policy Foundation	Legislative	October 3, 2019
Office of the Governor	Legislative	December 10, 2019
Office of the Lieutenant Governor	Legislative	December 10, 2019
Office of the Speaker of the House	Legislative	December 10, 2019
Legislative staff	Legislative	December 10, 2019
Texas Association of Community Colleges	Postsecondary Education	November 18, 2019
Texas State Technical College System	Postsecondary Education	November 5, 2019
Texas Association of College Technical Educators	Postsecondary Education	August 1, 2019
Texas Community College Teachers Association	Postsecondary Education	August 1, 2019
Texas College Counseling Association (Part of Texas Counseling Association)	Postsecondary Education	August 1, 2019
Texas Association of College and University Student Personnel Administrators	Postsecondary Education	August 1, 2019
National Association of Student Affairs Professionals Texas	Postsecondary Education	August 1, 2019
Texas Association of Student Financial Aid Administrators	Postsecondary Education	August 1, 2019
Texas Association of College Registrars and Admissions Officers	Postsecondary Education	August 1, 2019

Perkins V Stakeholder Engagement

Stakeholder	Stakeholder Type	Date
Texas Community College Instructional Administrators	Postsecondary Education	August 1, 2019
Texas Administrators of Continuing Education	Postsecondary Education	August 1, 2019
Community College Association of Texas Trustees	Postsecondary Education	August 1, 2019
Texas Association of Secondary School Principals	Secondary Education	November 21, 2019
Career and Technical Association of Texas	Secondary Education	December 17, 2019
Lone Star State School Counselor Association	Secondary Education	December 3, 2019
FFA	Secondary Education	November 4, 2019
Vocational Agriculture Teachers Association of Texas	Secondary Education	November 4, 2019
Texas Council of Administrators of Special Education	Secondary Education	October 24, 2019
CTE Leadership Committee	Secondary Education	October 25, 2019
Education Service Centers	Secondary Education	Monthly from November 2018
Students with Military Families	Secondary Education	November 14, 2018
State Board of Education	Secondary Education	January 28-31, 2020
Texas School Counselors Association	Secondary Education	December 12, 2019
SkillsUSA	Secondary Education	April 5, 2019
Family Career and Community Leaders of America	Secondary Education	May 31, 2019
Educators Rising	Secondary Education	June 10, 2019
Technology Student Association	Secondary Education	December 19, 2019
HOSA	Secondary Education	July 26, 2019
Future Business Leaders of America	Secondary Education	December 11, 2019
DECA	Secondary Education	December 11, 2019
Business Professionals of America	Secondary Education	December 11, 2019
Texas FFA Foundation	Secondary Education	November 4, 2019
Texas Association of School Administrators	Secondary Education	January 2020
Texas Association of School Boards	Secondary Education	January 2020
Mexican American School Board Association	Secondary Education	February 2020
Family and Consumer Sciences Teacher Association of Texas	Secondary Education	July 22, 2019
Career and Technical Association of Texas	Secondary Education	July 8, 2019
Hospitality Educators Association of Texas	Secondary Education	November 3, 2019
Texas Industrial Vocational Association	Secondary Education	January 15, 2019
Texas Hospitality Educators Association	Secondary Education	July 31, 2019
LSPCS	Secondary Education	June 19, 2019
Chief Academic Officer Council	Secondary Education	October 4, 2019
Presentation to CTE teachers at Vocational Agriculture Teachers Association of Texas Conference	Secondary Education	July 30, 2019
ELL Association TESOL	Secondary Education	TBD
Council for Rural Schools	Secondary Education	February 2020
Texas Workforce Commission	State Agency	Monthly from October 2018
Texas Higher Education Coordinating Board	State Agency	Monthly from October 2018
Texas Education Agency	State Agency	Monthly from October 2018
Texas Railroad Commission	State Agency	November 21, 2019
Texas Department of Criminal Justice and Windham	State Agency	June 14, 2019
Texas Health and Human Services Commission	State Agency	July 3, 2019
Texas Juvenile Justice Department	State Agency	June 14, 2019
Texas Department of Family and Protective Services	State Agency	February 2020
Vocational Rehabilitation Council	State Agency	February 2021
Texas Economic Development Council	State Agency	February 2022
Texas Veteran's Commission	State Agency	February 2023
Texas Workforce Investment Council	State Workforce Board	Monthly from October 2018
Charter School Summit	Secondary Education	June 7, 2019

## CCMP Presentations 7/2018-Present

Date	Conference Name	Presenter	Topics Covered	Audience Makeup	Audience Number
5/17/18	ESC 4-Fiscal Compliance and Funding Conference	L.Torres	ESSA, Perkins Transition Plan	Compensatory Funds Administrators	20
6/15/18	ESC 1-CTE Summer Conference	L.Torres	Proposed Programs of Study	CTE Administrators	100
7/8-7/12/18	I3CTE 18 Innovate, Ignite, Inspire	D.Fowler A.Brantley	POS, IBC	AC Teachers	125
7/14-15/18	SkillsUSA BOD	A. Brantley	Participant Recruitment for POS IAC	A+C, Mfg., AAVTC Teachers, Industry Partners	20
7/16/18	Hospitality Educators Assoc. of Texas (HEAT) BOD	D.Wieland	POS, IBC, HT Enrollment	HT Teachers and Industry Partners	30
7/17/18	Texas Vocational Association (TIVA) Summer PD	L.Torres	Proposed POS; Energy and Industrial Based Certifications	TIVA ISD Membership	150
7/20/18	TIVA CIPPS	D.Wieland	POS, IBC	Cosmetology Teachers	160
7/24/18	TAFE BOD Webinar	D.Wieland	POS	ET Teachers, TAFE Student Officers, Postsecondary Partners	30
7/24-7/25/18	CTAT Summer PD	ALL	POS, Perkins V, IBC	CTE Administrators, CTE Teachers, CTE vendors	700
7/25/18	THOA (Health Science Teachers Assoc.)	R.Whitson			
7/30-8/3/18	Family & Consumer Sciences Teachers Association of Texas (FCSTAT)	D.Wieland	POS, IBC, FCS Enrollment, CTSO Participation	FCS Teachers	500
7/31-8/3/18	Vocational Agriculture Teachers Assoc.	R.Whitson			
8/29/18	ESC 20 Quarterly CTE Update	D.Fowler	Perkins V, POS, IBC	CTE Directors	100
9/10/18	FFA BOD	A.Brantley	IBC	AFNR Teachers, Student State Officers, CTE Administrators, AFNR Industry Partners	25
9/17/18	FCCLA BOD	D.Wieland	POS, IAC, IBC	FCS Teachers, FCCLA Student Officers, Industry Partners, Parents	30
11/8/18	Texas Regional Pathways Network Convening	A.Brantley R.Merritt	LMI	WDA, School District, IHE Partners	250
11/9/18	Career Cluster Advisory Summit	ALL	Perkins V, POS, IBC	Teachers, School Administrators, Industry Partners	250
11/12-11/15/18	New CTE Teacher Conference	All	Perkins V, POS, IBC	New CTE Teachers	200
11/13/18	Hospitality Educators Association of Texas Conference	A.Brantley	Perkins V, POS IBC	HT Teachers	50

## CCMP Presentations 7/2018-Present

11/20/18	Texas FFA Legislative LEAD	A.Brantley R.Merritt	Interacting/Working with the TEA	AFNR Teachers	30
11/28-12/1/18	ACTE Vision	R.Merritt			
12/12/18	ESC 17	R.Merritt			
1/7/19	Texas FFA BOD	A.Brantley	POS, IBCs, Listening Tour	AFNR Teachers, Student State Officers, Administrators, AFNR Industry Partners	25
1/8/19	Texas FFA Foundation BOD	A.Brantley	POS, IBCs, Listening Tour	Ag Teachers, Student State Officers, Administrators, Ag Industry Reps	25
1/11/19	FFA Area XII Midwinter Teacher Professional Development	A.Brantley	IBC, POS	Ag Teachers	60
1/15-17/19	TIVA Midwinter	A.Brantley	IBC, POS	CTE Teachers	40
1/17-1/18/19	FCSTAT Midwinter Lubbock (Webinar)	D.Wieland	POS, IBC	FCS Teachers and CTE Administrators	160
1/24/19	FCSTAT Midwinter McAllen	D.Wieland	POS, IBC	FCS Teachers	75
1/28/19	HEAT Board Meeting	D.Wieland	POS, IBC	HT Teachers and Industry Partners	30
2/8/19	Fort Hood Education Summit	D.Wieland and Steve Smith	POS, IBC	Military Partners, Teachers, Superintendents	50
2/11-2/13/19	Winter CTAT	All			
2/18/19	FCCLA BOD	D.Wieland	POS, IAC, IBC	FCS Teachers, FCCLA Student Officers, Industry Partners, Parents	40
2/28-3/1/19	TAFE BOD at TAFE Teach Tomorrow Summit	D.Wieland	POS, IBC, EdTPA	ET Teachers, TAFE Student Officers, Postsecondary Partners	30
3/26/19	ESSA Institute	L.Torres	ESSA and Perkins V	Compensatory Funds Administrators	25
3/24-3/25/19	Texas FFA BOD	A.Brantley	POS, IBCs, Listening Tour	AFNR Teachers, Student State Officers, Administrators, AFNR Industry Partners	25
3/26/19	Texas FFA Foundation BOD	A.Brantley	POS, IBCs, Listening Tour	AFNR Teachers, Student State Officers, Administrators, AFNR Industry Partners	25
4/4-4/6/19	SkillsUSA State Conference	A.Brantley			
4/5-4/6/19	FCCLA State Leadership Conference	D.Wieland	Perkins V, POS, IBC, World Food Championships	FCS Teachers	500
4/24/19	ACET Spring	L.Torres	Perkins V Transition	Compensatory Funds Administrators	25

## CCMP Presentations 7/2018-Present

5/31/19	FCCLA BOD	D.Wieland	POS, Perkins V, IBC	FCS Teachers, FCCLA Student Officers, Industry Partners, Parents	40
6/10/19	TAFE BOD	D.Wieland	POS, IBC	ET Teachers, TAFE student Officers, Postsecondary Partners	30
6/11-6/13/19	GYO Teacher Institute	D.Wieland	POS, IBC	ET Teachers, School Administrators and Counselors, Superintendents	200
6/13/19	TASSP	A.Barrera	IBC Evaluation Process and Updated List	School Principals	75
6/17/19	Texas Regional Pathways	L.Torres	Gulf Coast Pipeline Project	Sheldon ISD, Dayton ISD, Channelview, San Jacinto CC, Lee College	10
6/17/19	Texas Regional Pathways Network Convening	A.Brantley L.Torres	Group Facilitation – POS and TRPN Stakeholders	School Districts, ESCs, Industry	100
6/18-6/19/19	CCRSM Leadership Summit	A.Brantley R.Merritt	POS	ECHS, PTECH, TSTEM, ICIA School Districts	350
6/19/19	Law, Public Safety, Corrections, and Security Teacher Conference	D.Fowler	POS	LPSCS and Forensic Science Teachers	100
6/19/19	THLA Education Foundation Committee Meeting	D.Wieland A.Barrera	POS, IBC	HT Industry Partners	30
6/25/19	Region 10 CTE Conference	A.Brantley R.Merritt	POS, IBCs	Counselors, Teachers, Administrators	80
7/7/19	CTAT- Breakout Session	L.Torres	Energy Program Implementation	LEAs	41
7/22/19	TEXO Foundation	A.Brantley R.Merritt	POS, IBCs	LEAs and Industry Partners	40
7/22-7/23/19	FCSTAT	D.Wieland	POS, Perkins V, IBCs	FCS Teachers	500
7/29-7/31/19	VATAT Conference	A.Brantley	New Teacher, POS, IBCs	AFNR Teachers	100
7/31/19	Region 13 Accountability Summit	A.Barrera	IBC Evaluation Process and Updated List	Region 13 School District Staff	75
8/20/19	CyberTexas Foundation	L.Torres	Cybersecurity POS Implementation	LEAs	20
9/18/19	DECA Advisors	D.Fowler	POS, IBC	DECA Chapter Advisors	50
9/25/19	Texas Travel Summit	D.Wieland	POS, IBC, Industry Partnerships, HT Enrollment Numbers	Industry Partners; Primarily CVB and Travel Industry	300

**TEA APPENDIX 2:  
Public Comment Highlights**

<b>DATE:</b>	<b>August 30, 2019</b>
<b>SUBJECT:</b>	<b>Final CTE Programs of Study</b>

Texas Education Agency (TEA) conducted a public comment period on proposed Career and Technical Education (CTE) statewide programs of study. Formal feedback was received from over 950 district and campus level administrators, CTE coordinators, CTE teachers, counselors, and industry representatives.

In-person feedback was also collected from over 1,000 stakeholders through information sessions at multiple summer conferences including the Career and Technical Association of Texas, College and Career conferences held at education service centers, and the College and Career Readiness School Models Leadership Summit. The draft versions were also discussed with the Texas CTE Leadership Committee, made up of representatives from all twenty education service centers and members of the Career and Technical Association of Texas, in order to gather regional feedback from CTE leaders.

A significant amount of comments focused on concerns related to embedding STEM related courses into other career clusters, adding general courses to every program of study, and questions regarding flexibility within course sequences. The largest number of comments centered around adding additional CTE courses in fashion design to a course sequence. Positive letters were received in support of the new Energy career cluster and requests were made to allow energy sequences to count as a STEM endorsement.

The following table covers the highlights of significant changes based upon public comment while maintaining the methodology used to develop the statewide programs of study:

<b><i>Highlights of Changes to Programs of Study Based on Public Comment</i></b>
<ul style="list-style-type: none"> <li>▪ STEM career cluster will remain in place and STEM related programs of study have been organized under the cluster to better align with current endorsement rules</li> </ul>
<ul style="list-style-type: none"> <li>▪ Technology Application courses have been added to programs of study as a result of recent legislation</li> </ul>
<ul style="list-style-type: none"> <li>▪ Engineering courses sequences were adjusted to align with Project Lead the Way guidelines</li> </ul>
<ul style="list-style-type: none"> <li>▪ Principles of Health Science and Medical Terminology courses are now included in five out of the six course sequences in Health Science</li> </ul>
<ul style="list-style-type: none"> <li>▪ Fashion II/Lab was added to the Design &amp; Multimedia program of study</li> </ul>

These revisions have been made to the statewide programs of study documents and the final versions have been vetted through the CTE Leadership Committee. Plans are in place to publish the statewide programs of study on Thursday, September 5, 2019. Once the statewide course sequences have been released, an application process will begin for districts to apply for regional programs of study.

Texas Perkins V State Plan Public Comments and Responses

Stakeholder Type	Section of State Plan for feedback	Page numbers of section for feedback	Secondary or Postsecondary Feedback	Feedback on the Perkins V State Plan for Texas	Public Comment Response
Business & Industry Representative	B2-Implementing Career and Technical Education Programs and Programs of Study	Pg 123; Electrical Program of Study Chart	Secondary	As a stakeholder in the Perkins v. State Plan, the Independent Electrical Contractors of Texas believes the chart on the page is inaccurate. Under certificate/license on Electrical Apprenticeship Certificate Level 1, the student will receive a Texas State issued apprenticeship license as a high school student and be able to work in the field and be paid while in school. The certificate will be earned at the end of their senior year, but they will still be licensed and able to work and complete the other 3 years of the electrical program and prepares them to earn a journeyman license. The student will have a state issued license and a job that is not listed on the chart.	The Electrical program of study included in the appendix provides examples of industry certifications, licenses and degree options for secondary and postsecondary students. TEA will revisit additions and changes to specific sections on the program of study framework.
Business & Industry Representative	B2-Implementing Career and Technical Education Programs and Programs of Study	Pg 26; programs of study must	Secondary	The Independent Electrical Contractors of Texas' Electrical Apprenticeship Certificate Level 1 Industry-Based Certification meets all 7 requirements under HB 2628 and should have the end date on the program removed.	The end date on the 2019-2020 list of industry-based certifications for public school accountability indicates that the certification did not meet one of the five evaluation criteria. TEA has been in contact with the vendor and communications about inclusion in the next round of revisions for industry-based certifications are under way.
Business & Industry Representative	B1-State's Vision for Education and Workforce Development	17, 19, 35, 34	Secondary	On behalf of Project Lead The Way, I thank you for the opportunity to comment on Texas's state plan for the Strengthening Career and Technical Education for the 21st Century Act (Perkins V). Project Lead The Way (PLTW) is a nonprofit organization that provides a transformative learning experience for PreK-12 students and teachers across the U.S. through more than 14,000 programs in approximately 11,500 schools.  PLTW empowers students to develop and apply in-demand, transportable skills by exploring real-world challenges. Through our pathways in computer science, engineering and biomedical science, students not only learn technical skills, but also learn to solve problems, think critically and creatively, communicate, and collaborate. We also provide teachers with the training, resources, and support they need to engage students in real-world learning. PLTW was proud to provide programs to more than 85,000 students through over 1,000 programs in Texas during the 2019 – 2020 academic year. It is our hope that all PLTW students become highly-qualified individuals who are in demand in today's workforce.  PLTW has become a leader in achieving the goals and outcomes championed by Perkins. In response to the President's budget proposal released last month, PLTW's President and CEO, Vince Bertram, provided the following statement to the U.S. Department of Education, "America's global competitiveness requires a highly skilled workforce, and the opportunity to pursue the American Dream can be realized if our students develop the knowledge and skills necessary to thrive in our rapidly evolving economy. Investing today in America's students and career and technical education is an essential investment in our nation's future."  We applaud the Texas Education Agency (TEA) on the time and forethought that was put into the development of the Perkins V state plan, and we ask that you consider the following recommendations:	TEA submitted additional areas for consideration of the STEM endorsement to the State Board of Education. This includes many of the items specifically identified in the response. Vendors will be able to submit their materials for instructional material review as CTE courses are revised through the State Board of Education process.
Business & Industry Representative	B1-State's Vision for Education and Workforce Development	22	Secondary	Page 17 – Development of a STEM framework in secondary education. As the provider of a number of courses that are classified under the STEM program of study, PLTW would love to serve as a thought partner on this initiative. Note that would not include the advocacy of our programs alone, rather a resource in the planning process. PLTW representatives have served as resources through participating on state education and workforce development councils in various states, including California and Florida. In Texas, we are currently a member of the Computer Science for Texas (CS4TX) coalition for the advancement of computer science education. On the federal level, PLTW's President and CEO, Dr. Vince Bertram, was appointed to the Congress-Authorized Science, Technology, Engineering, and Mathematics (STEM) Education Advisory Panel by the National Science Foundation back in 2018.  Page 17 and 35 – Work-Based Learning. PLTW has successfully demonstrated the connection between classroom and career as highlighted through our partnerships with companies like Toyota and Lockheed Martin. We will continue to work in the arena with state departments of education and workforce across the country to make work College Board is pleased to see that the state is clear that districts must offer a specific number of programs of study based on district high school enrollment numbers, and that these programs of study align to statewide graduation endorsements.  We hope that Texas uses Perkins V to further innovate their CTE programs and provide additional pathways for students. Texas could further expand their CTE programs of study by integrating rigorous Advanced Placement (AP) courses in the statewide approved programs of study that do not include AP. AP is only available in the Networking System program of study in the Information Technology Cluster and the Cybersecurity and Programming and Software Development programs of study in the STEM Cluster. Perkins V encourages states to support accelerated learning programs, defined as AP, IB, or dual-credit programs, and state plans must outline opportunities for students to earn college credit in high school. In fact, AP fits into many different CTE programs of study. Advanced CTE, College Board, and CTE directors from multiple states teamed up to publish a report articulating how AP courses connect to the 16 Career Clusters listed in the National Career Cluster Framework.  AP and CTE courses can, and should, work in tandem to support career readiness by encouraging the development of the academic knowledge and technical skills that are – together – increasingly important to students' overall employability. AP and CTE courses complement and supplement each other by allowing students to explore coursework and develop relevant skills focused on career areas in which they aspire to work. Moreover, integrating AP and CTE courses gives students the opportunity to leverage the investments Texas has made in support of AP as part of its overall 60x30 goals.  We hope to work with you to expand access to rigorous advanced coursework for your CTE students.  link to report referenced above: <a href="https://careertech.org/resource/ap-cte-working-together">https://careertech.org/resource/ap-cte-working-together</a>	The end date on the 2019-2020 list of industry-based certifications for public school accountability indicates that the certification did not meet one of the five evaluation criteria. TEA has been in contact with the vendor and communications about inclusion in the next round of revisions for industry-based certifications are under way.  TEA will continue to review programs of study and relevant/applicable advanced academics courses such as advanced placement. The programs of study will be revised every two years to coincide with updated labor market projections.

Texas Perkins V State Plan Public Comments and Responses

Business & Industry Representative	B1-State's Vision for Education and Workforce Development	9-21	Secondary	<p>The College Board looks forward to working with the TEA and other partners as they execute their vision for increasing student access to CTE so that all students have a fair shot at preparing for high skill and high-wage jobs.</p> <p>College Board is especially interested in ensuring that students are informed of both college and career opportunities, and have equal access to quality tools and dashboards as part of this decision-making process. That is why we are pleased to see that the TEA will use Perkins State Leadership funds to develop and strengthen career exploration activities such as curriculum on college and career prep for middle school, counselor and advisor training, and student dashboards that include data on high-skill, high-wage, and in-demand occupations.</p> <p>College Board, as part of our mission to clear a path for students to own their future, partnered with Roadtrip Nation® to create Career Finder™, a unique online tool that lets students explore majors and careers that align with their personal interests and connects them to compatible schools on BigFuture™. We believe that Career Finder aligns with some of the items Texas plans to develop as part of Perkins V and encourage the TEA and its partners to consider Career Finder as an option as part of overall efforts to increase student access to valuable jobs data. We look forward to working with you to ensure students have access to this valuable tool.</p> <p>Benefits for Students</p> <ul style="list-style-type: none"> <li>• Personalized major and career recommendations, plus course and activity ideas</li> <li>• Seamless connections to college planning with BigFuture</li> <li>• Access to videos featuring insights from successful professionals</li> </ul> <p>Benefits for Counselors</p> <ul style="list-style-type: none"> <li>• Actionable information for conversations with students about relevant colleges and careers</li> <li>• Course-planning ideas for students based on their career roadmaps</li> <li>• Simple, engaging course and career-planning tool using the power of storytelling</li> </ul> <p>Benefits for Texas and School Districts</p> <ul style="list-style-type: none"> <li>• Student career and course planning based on their passions and interests</li> <li>• Easy-to-use counselor and administrator resource to monitor student college and career planning</li> <li>• Personalized college and career action plans for students</li> </ul>	<p>Instructional materials review will be adopted as a part of CTE TBS review per the State Board of Education process.</p>
School District	B2-Implementing Career and Technical Education Programs and Programs of Study	22- 25	Secondary	<p>The Programs of Study format and documentation, as displayed on pages 23 and 24, present the information clearly and in a concise manner. The format is strong and serves as an excellent planning and guidance tool as students are advised over their potential Program of Study and future career. Page 25 also displays the new formatted webpage as it applies to the Programs of Study and highly useful. Future documents should reflect the same framework to maintain consistency and integrity.</p>	<p>Thank you for sharing your comment with the Texas Education Agency.</p>
School District	B- Implementing Career and Technical Education Programs and Programs of Study		Secondary	<p>The Perkins V approved programs of study for Programming and Software Development under the STEM pathway does not include Robotics I and II. These two courses could be considered programming, but they are placed under the Advanced Manufacturing and Machinery Mechanics program of study. I would like to see Robotics I and II duplicated in the STEM Programming and Software Development program of study.</p>	<p>Thank you for sharing your comment with the Texas Education Agency. TEA will continue to review programs of study and we appreciate the information shared.</p>
School District	A-Plan Development and Consultation	whole document	Secondary	<p>In future versions, I think it would be helpful to have separate sections for Secondary vs Postsecondary to ensure requirements and guiding entities are clear.</p>	<p>Thank you for sharing your comment with the Texas Education Agency.</p>
School District	B2-Implementing Career and Technical Education Programs and Programs of Study	32	Secondary	<p>But overall, the plan is very comprehensive and gives a great picture of what is happening with CTE in the state of Texas. Thanks!</p>	<p>Thank you for sharing your comment with the Texas Education Agency.</p>
School District	A-Plan Development and Consultation	Texas	Secondary	<p>I love the Pathway samples for the Programs of Study. The inclusion of the Academic Knowledge and WBL all on one page is so important!</p>	<p>Thank you for sharing your comment with the Texas Education Agency.</p>
School District	A-Plan Development and Consultation	Texas	Secondary	<p>1. In spite of claims that TEA will improve outcomes for all public school students in the state by providing leadership, guidance, and support to school systems, to the contrary, TEA mandates have become more extensive, cumbersome and dictatorial than in years past</p> <p>2. The public input that TEA claims to have sought on multiple occasions and from multiple sources, is exaggerated and was totally controlled by TEA. Transparency was minimal at best and TEA representatives were not available to answer questions. Site visits were carefully selected and not extensive in nature.</p> <p>3. Needs assessment is extensive and most of the information is unnecessary. I would hate to do the amount of work required to have it rejected because TEA does not think the answers are complete. The needs assessment goes out in Feb and the actual application should go out in June, but if the application runs as everything else, we won't have Fed funds before the next year begins</p>	<p>Thank you for sharing your comment with the Texas Education Agency. We would welcome specifics as to where your questions or comments were not addressed.</p>

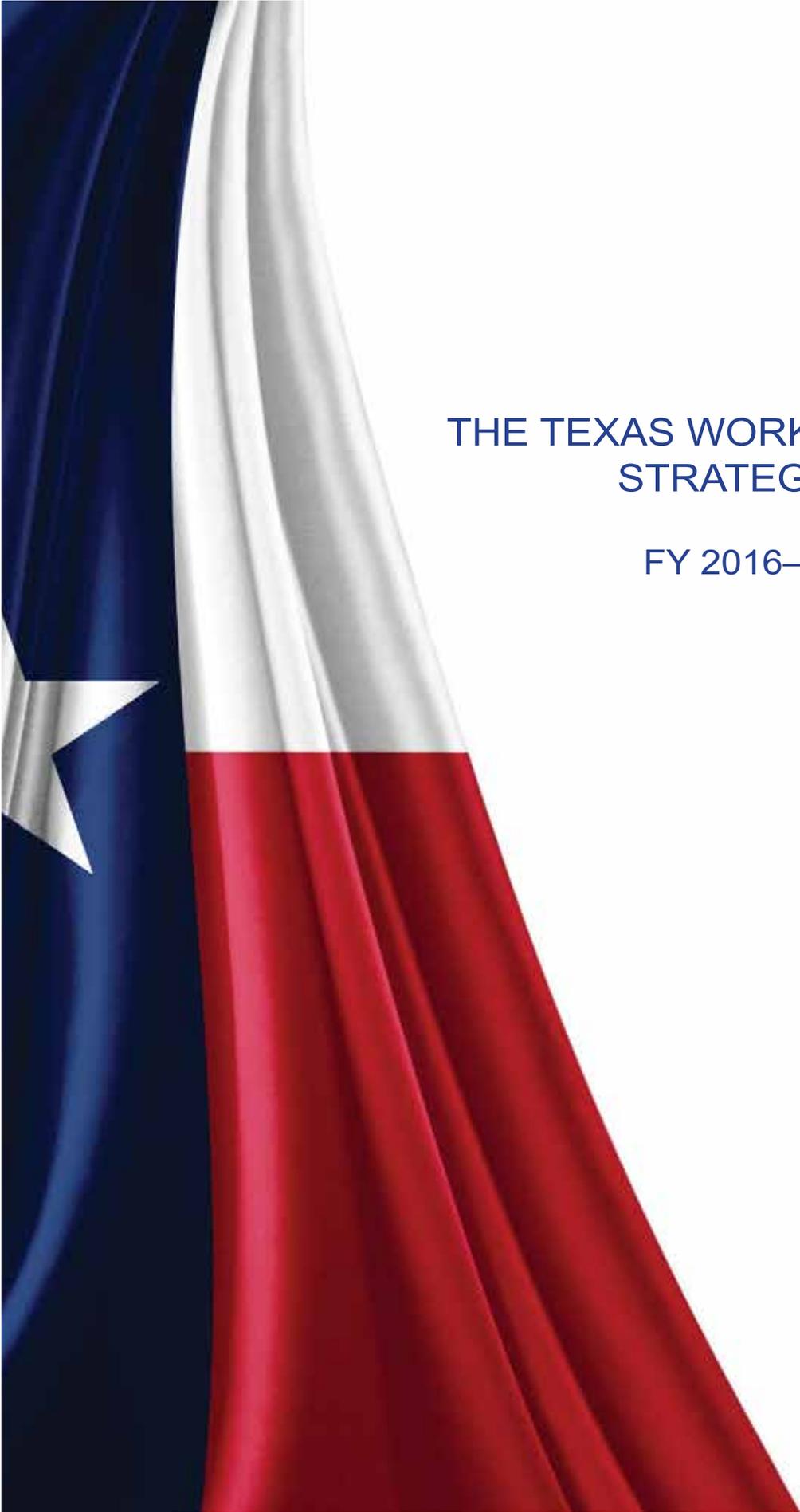
Texas Perkins V State Plan Public Comments and Responses

School District	B2-Implementing Career and Technical Education Programs and Programs of Study	20-42	Secondary	<p>State leadership will facilitate Board of Director training related to roles and responsibilities, Perkins 5 and programs of study. Training will be implemented annually.</p> <p>3. <b>Fig 20</b> – State CTE staff will facilitate a Landscape Analysis for CTSO state performance measurements.</p> <p>a. <b>ESOs</b> are guided by the national organizations and although they are considered “co-curricular” in the state of Texas, the CTSOs are the student organizations that POS support. State CTE staff should not be serving on these boards</p> <p>b. <b>ETSO</b> board members do not speak for districts regarding program offerings, local policy, or the local LEA mission and vision. State CTE staff should not be providing training to CTSO board members because they (for the most part) are teachers, not directors and work with the students in the district; they do not set policy, procedures, or design programs and services. Districts are not required to have CTSOs and many do not offer all of the CTSOs available.</p> <p>c. <b>Not sure</b> what is meant by “Landscape Analysis” but appears to be in conflict with what is currently measured through programs. Quarterly report from Texas Workforce Commission provides partnership opportunities with business and industry.... Really? The only reports we get are from Interlink. All other information must be secured through the Workforce Boards and it is virtually impossible to find anyone that can assist you with questions or concerns. Furthermore, many, if not all of the opportunities for students through mentorships, internships and summer programs are targeted to specific districts and are not inclusive. Professional Development opportunities may be available, but the information is not relevant or timely and there is no real instructional benefit. <b>ESCs</b> will participate in the review of the Comprehensive Local Needs Assessment for LEAs within their district. If TEA approves, the district can apply for funds. Another barrier to simplifying the process of progress with CTE. The application (including the needs assessment) has doubled in size and information requirements.</p> <p>6. <b>Fig 28</b> - Process for Regional Programs of Study: Once again, making the process for offering programs that are needed and in-demand within your region difficult to achieve. TEA dictates who can and who cannot offer programs based on their data sources and could take an extensive amount of time to meet with advisory boards and workforce boards to finalize the application. LEAs are dependent on Regional Service Centers to process requests in a timely manner- something that did not happen this first year.</p> <p>7. <b>Fig 41</b> - TEA will develop or procure software to collect, analyze, store, monitor and report on work-based learning opportunities that students have participated in across Texas based on information submitted through LEAs. The thought being that TEA can facilitate connections between educational institutions and employers. We don't need TEA to facilitate, we need TEA to provide funding to support local positions to achieve this goal. We do not need more government interventions through intermediaries around the state. Look at the Workforce Boards- they work for some, but not all school districts. Texas is too big for TEA to try and control what opportunities are available in each community. <b>8. Data</b> to be submitted- not sure how this will impact funding. If CTE students do not meet baseline data, will district not receive funds? Postsecondary data- looks as if they are tracking students after graduation. How will this work? <b>9. Middle school courses</b>- it appears that TEA is writing modules for the College and Career Readiness course and the Investigating Careers course. Does this mean that districts will no longer be able to focus on various POS through Investigating Careers? Still not funded?</p> <p>10. <b>Training</b>- ESCs are to provide training for counselors, administrators and parents. I feel that the general overview of the state plan will be okay, but again, districts</p>	<p>Thank you for sharing your comment with the Texas Education Agency. Revisions related to comments on Career and Technical Student Organizations have been reflected in the state plan to address this concern. Important to note is the definition of size, scope, and quality, where Career and Technical Student Organizations are a part of the definition of a quality program. The Comprehensive Local Needs Assessment (CLNA) is a requirement of the Perkins V legislation. TEA released regional labor market information to every district and made this available on the website to assist in receiving this information and not having to go through a workforce board to receive the information. Additionally all district data was sent to districts so they did not need to compile this information to respond to the CLNA. This was done in conjunction with a CLNA guide to assist districts in fulfilling this new requirement. Districts are encouraged to innovate and submit new programs of study through the regional program of study process. TEA was pleased to approve 8 of those regional programs of study for districts to offer in 2020-2021. This process will continue every year to provide districts the opportunity to meet the needs of their community.</p>
School District	B2-Implementing Career and Technical Education Programs and Programs of Study	Texas	Secondary	<p>As an educator and parent of a student in high school I am firmly against the requirement of students following pathways. Yes they should be offered but students should be allowed to explore all the different options to find out what they are truly interested in. We say we want the students to minimize the debt they take on in postsecondary education but how many students change their majors once if not multiple times as they try to find their way in life? All that is doing is causing them to take on more debt that could have been avoided if we had encouraged students to explore architecture, computer programming, AV, etc.</p>	<p>Thank you for sharing your comment with the Texas Education Agency. We agree that career exploration is vitally important for our students. This is reflected in the middle school career exploration curriculum as well as in work-based learning career awareness and exploration activities that are encouraged to take place in earlier grades and not wait until high school. Students are still allowed to change their program of study and are not required to complete a program of study.</p>
Business & Industry Representative	B1-State's Vision for Education and Workforce Development			<p>Adobe appreciates having this opportunity to provide input on the Texas Department of Education's Perkins Career and Technical Act (Perkins V) plan. We strongly support the state's Essential Knowledge and Skills for Career Development, including the expectation that high school students are able to apply critical- and creative-thinking skills to solve complex problems and middle school students are able to use problem-solving models and critical-thinking skills to make informed decisions. As a global technology leader, we need creative, collaborative employees who can solve problems and communicate effectively with each other and our customers. We deeply value these competencies. We also recognize the growing worldwide demand for them by other leading private and public sector employers and the communities they serve. Career and technical education experiences and activities should recognize these workforce needs and align with the work and life experiences students will encounter after graduation. As your agency completes Texas's plan for implementing Perkins V, we respectfully encourage you to consider using Perkins V's performance based learning provisions as a tool to expand the state's career development leadership. Performance based learning is one of the most effective and engaging way for career and technical education students to acquire, at their own pace, the deep content knowledge and an array of essential skills they will need to thrive as workers, community members, and lifelong learners. This approach includes providing opportunities for students to use technology to maximize their creative contributions and impact and demonstrate the knowledge and skills they are acquiring through CTE courses. Consistent with this vision, we respectfully urge you to consider adding the following ideas to Texas's long term Perkins V plan.</p> <p><b>INVEST IN CAREER AND TECHNICAL EDUCATION TEACHERS AND COUNSELORS</b></p> <p>Adobe strongly supports the Texas Perkins V Transition plan's emphasis on training career and technical education teachers, including training CTE teachers as licensed instructors in specific industry certifications and/or become a testing site. Evidence shows that teachers and school leaders play the most important role in promoting student achievement, including in career and technical education. Teachers and school leaders are also best positioned to establish learning environments that will cultivate the next generation of creative workers and citizens. Given the critical importance of highly effective teachers to CTE programs, we encourage Texas to include language in the Perkins V plan encouraging school districts to provide professional development opportunities for teachers, school leaders, and other CTE professionals to build their capacity to use competency-based models and other performance-based learning practices. For example, Perkins funding could be used to help Texas CTE teachers develop and use high quality performance assessments that better illustrate CTE student's knowledge and skills, effectively use student data gathered through portfolios and other innovative assessments to support personalized learning, and integrate technology to support rich CTE instruction, experiences, and assessments of learning. Adobe also urges Texas to ensure that all school counselors in the state are encouraged and equipped to help students understand the value of acquiring creative literacy, critical thinking, collaboration and communication skills, consistent with the Texas Essential Knowledge and Skills for Career Development. Counselors should also encourage CTE students to seek work based learning opportunities and help them seek out CTE courses that use performance based learning models. This recommendation aligns directly with Perkins V's permitted state level investment in “improv[is] career guidance and academic counseling programs”, which can include helping students recognize the value in cultivating their creativity, critical thinking, communication, and collaboration skills.</p> <p><b>ENCOURAGE ELIGIBLE RECIPIENTS TO PROMOTE CTE INNOVATION</b></p>	<p>Thank you for sharing your comment with the Texas Education Agency. In response to invest in CTE Teachers and Counselors, please see the section on uses of leadership funds. In this section, there are specific activities designed to support CTE teachers in terms of training and certification alignment. There are also activities specifically supporting the training of counselors. In response to promoting innovation, we will be looking to add some of these categories into the Perkins Reserve Grant in future years. We are excited to already begin promoting CTE TEKS with specific knowledge and skills related to what students need to know and be able to do as well as creating our work-based learning framework to start to address how to work with employers to provide robust opportunities for students to get hands on real world application.</p>
School District	B2-Implementing Career and Technical Education Programs and Programs of Study	Tx	Secondary	<p>I feel student participation and success in CTE student organizations should carry as much weight as industry certifications toward district's accountability. Currently the list on industry certifications is very limited due to student age and hours of training required to obtain certification.</p>	<p>Thank you for sharing your comment with the Texas Education Agency. Please note that we added a component to the size, scope, and quality definition to include Career and Technical Student Organizations as a component of a quality program. Please also note that the list of industry-based certifications has grown from the original list of 73 to now 245 recognized industry-based certifications.</p>

Texas Perkins V State Plan Public Comments and Responses

School District	B2-Implementing Career and Technical Education Programs and Programs of Study		Secondary	<p>Although area employment data is certainly a key point of consideration, there is the risk of becoming too restrictive in our programming if we tie all of our offerings to local employment information. Although we certainly want our students to have opportunities to become well-equipped employees, we need to think more broadly. Balancing student interests, national and international trends, along with local employability data should all be considered. The pace of change increases exponentially and becoming too restrictive in our programming is not a risk we can not endure when it comes to the futures of our students...whether they stay with us or move on. In addition to local employment data, we should also be working with projection analysts to help us understand our needs 10-15 years down the road, as well as national trends that could quickly impact our local areas.</p> <p>The intention of Programs of Study were to identify local/regional employment opportunities and create course pathways for career preparation. The POS that TEA developed do not meet the local / regional / workforce demand in our area. It is ok for our district to offer Hospitality POS but there is genuinely not any good CAREER opportunities (for a high wage, high demand job) in this area. Its again a case of trying to be prescriptive and applying the same medicine to every case. We submitted a request for a Regional POS and it was shot down. Districts are tasked with ensuring we know what our community needs and being able to substantiate it, but when we requested a regional POS to support that, it was not approved.</p> <p>The programs of study are too specific with their course options. The career clusters worked well to give districts the ability to create pathways that really did meet their local needs. The POS do not.</p> <p>In a district that gives students the opportunity to earn 28 credits over 4 years, the expectation that 4 credits of a program of study be met is unreasonable.</p>	<p>Thank you for sharing your comment with the Texas Education Agency. We agree that national trends and preparing students for skills that will be required of future occupations is vitally important. Please let us know if there are specific data sets or skills you would like to see included.</p>
School District	B2-Implementing Career and Technical Education Programs and Programs of Study	TX	Secondary	<p>For CTSD/Exploration Activities I noticed only Skills USA being mentioned for the Welding Cluster. I am a Welding Instructor for Tyler SDS CTC and my students participate in TSA (Technology Student Association). I am an Advisor for TSA as well. TSA offers a comprehensive amount of industry based/STEM based learning experiences not only to build in, but compete in as well, and I invite TEA to review TSA's state rule book to see what all categories are offered to compete in and attend a TSA State competition to view the many different projects that vary from Welding projects, engineering projects, all the way to robotics, and anything else imagined plus anything in between.</p>	<p>Thank you for sharing your comment with the Texas Education Agency. Districts have the flexibility in choosing a Career and Technical Student Organization that best represents the needs of their students.</p>

**TEA APPENDIX 3:  
Texas Workforce System Strategic Plan Excerpts**

The image features a close-up, vertical view of the Texas state flag. The flag is shown from the left side, with the blue field containing a white five-pointed star partially visible. The white field is above the red field, and the flag appears to be draped or flowing. The background is a plain, light color.

# THE TEXAS WORKFORCE SYSTEM STRATEGIC PLAN

FY 2016–FY 2023

Texas Workforce Investment Council  
September 2017 Update

## **VISION**

**An innovative, world-class Texas workforce system ensures success in the dynamic global economy.**

## **MISSION**

**The mission of the Texas workforce system is to position Texas as a global economic leader by:**

- **Growing and sustaining a competitive workforce**
- **Aligning programs with employer needs**
- **Integrating system services**
- **Leveraging partnerships**

## Goal Area 1: Focus on Employers

By improving access to critical education and labor data sets, employers can better find and plan for skilled workers to meet their needs in both the immediate timeframe and the future. Through greater engagement with employers, education and training providers can better design career and technical education content and delivery options that are more aligned with industry needs. Providers can make adjustments in program content to benefit employers and students, as well as address both state and regional economic needs.

System Partner Strategy	Agency	System Objective	System Goal
Expand outreach programs to employers to assist veterans to find quality employment.	TVC	Increase business and industry involvement.	<i>Focus on employers</i>
Involve business and industry in Texas Essential Knowledge and Skills review and programs of study.	TEA		
Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.	TWC TEA THECB TVC TDCJ	Expand licensure and industry certification.	
Align career and technical education program content and outcomes with third-party, industry-based certifications.	TEA THECB		

## System Objective

Increase business and industry involvement.

## Strategy

Expand outreach programs to employers to assist veterans to find quality employment.

## Partner Agency

Texas Veterans Commission

Action	Start Date	End Date
Integrate with Texas Workforce Commission business service units across the state.	Ongoing	FY 2019
Partner with employers and veteran service organizations on hiring events.	Ongoing	FY 2019
Participate in corporate events, panel discussions, and presentations.	Ongoing	FY 2019
Partner with employer organizations, the Society for Human Resource Management, and chambers of commerce.	Ongoing	FY 2019
Conduct semi-annual employer satisfaction surveys, analyze survey data, and evaluate ways to improve outreach programs to employers.	Ongoing	FY 2019

## Performance Measure

- Rate of employer satisfaction

## System Objective

Increase business and industry involvement.

## Strategy

Involve business and industry in Texas Essential Knowledge and Skills review and programs of study.

## Partner Agency

Texas Education Agency

## Action

## Start Date

## End Date

Involve business and industry representatives on committees for the review and revision of the Texas Essential Knowledge and Skills (TEKS) for career and technical education (CTE).

Initiate next review cycle

Date set by the State Board of Education

Solicit informal feedback and public comment on drafts of TEKS for career and technical education from specific business and industry representatives.

Initiate next review cycle

Date set by the State Board of Education  
FY 2019

Identify and review relevant industry-based certifications, and incorporate examples into the revision of programs of study content.

Ongoing

Request assistance from the Texas Workforce Commission in soliciting business and industry input on revised programs of study.

Ongoing

FY 2019

## Performance Measure

- Percentage of revised career and technical education programs of study reviewed by business and industry

**System Objective**

Expand licensure and industry certification.

**Strategy**

Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.

**Partner Agency**

Texas Workforce Commission

**Action****Start Date   End Date**

Expand training strategies and options to increase industry-based certifications offered in response to employer-defined needs by working through local workforce boards to identify certifications that support local employers and building capacity to provide those certifications.

FY 2016      FY 2017

**Performance Measure**

- Type and number of third-party, industry-based certifications successfully completed by program participants

## System Objective

Expand licensure and industry certification.

## Strategy

Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.

## Partner Agency

Texas Education Agency

Action	Start Date	End Date
Collect third-party, industry-based certification information on the Perkins annual performance evaluation report.	Ongoing	FY 2019
Identify and include third-party, industry-based certifications, as relevant, as examples in revised programs of study.	Ongoing	FY 2019

## Performance Measures

- Type and number of third-party, industry-based certifications successfully completed by program participants
- Certification success rate: total successfully completed certification assessments divided by total attempted certification assessments

### **System Objective**

Expand licensure and industry certification.

### **Strategy**

Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.

### **Partner Agency**

Texas Higher Education Coordinating Board

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Identify and incorporate industry-based certifications as milestones in programs of study.	FY 2016	FY 2019
Consider industry-based certifications as potential success points in formula/performance funding.	FY 2019	FY 2019
Revise existing Workforce Education Course Manual course review process to include discipline-specific professional development to encourage statewide adoption and use of industry-based certifications.	FY 2016	FY 2019

### **Performance Measure**

- Type and number of third-party, industry-based certifications successfully completed by program participants

## System Objective

Expand licensure and industry certification.

## Strategy

Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.

## Partner Agency

Texas Veterans Commission

## Action

## Start Date

## End Date

Work with regulatory agencies to use the Texas Department of Licensure and Regulation's primer for developing service credit for occupational licensing as a guide for accurately evaluating military service credit by developing standardized training for other regulatory agencies to adopt and tailor for their specific agency.

Ongoing

FY 2019

Work with regulatory agencies to establish a process for a military service member or veteran to submit an application for a license or apprenticeship and to obtain credit for verified military experience, service, training, or education.

Ongoing

FY 2019

Work with regulatory agencies to post those Military Occupational Standard classifications or designators that correspond to licensed occupations to establish a clear support system to ensure as many veterans as possible are aware of job options.

Ongoing

FY 2019

## Performance Measure

- Type and number of third-party, industry-based certifications successfully completed by program participants

## System Objective

Expand licensure and industry certification.

### Strategy

Use third-party, industry-based certifications where relevant as an education or training outcome to connect graduate competencies to job skill requirements.

### Partner Agency

Windham School District (Texas Department of Criminal Justice)

Action	Start Date	End Date
Continue to develop and maintain partnerships between industry and the Windham School District in order to provide certifications to students that will fulfill job requirements in the current workforce market.	FY 2016	FY 2016
Expand the number of career and technical education classes providing industry standard certifications.	FY 2016	FY 2019
Expand the career and technical education programs offered by Windham School District, and evaluate program effectiveness.	FY 2016	FY 2019

### Performance Measures

- Type and number of third-party, industry-based certifications successfully completed by program participants
- Certification success rate: total successfully completed certification assessments divided by total attempted certification assessments

## System Objective

Expand licensure and industry certification.

### Strategy

Align career and technical education program content and outcomes with third-party, industry-based certifications.

### Partner Agency

Texas Education Agency

Action	Start Date	End Date
Align Texas Essential Knowledge and Skills to industry-based certifications, where relevant.	Ongoing	FY 2019
Include industry certifications as examples in programs of study and college and career planning guides.	Ongoing	FY 2019
Identify industry certifications offered by Early College High Schools.	Ongoing	FY 2019
Design processes for career and technical education programs of study that identify relevant industry certifications and licenses and incorporate related career and skill information into program content where appropriate.	Ongoing	FY 2019

### Performance Measure

Not applicable—qualitative

**System Objective**

Expand licensure and industry certification.

**Strategy**

Align career and technical education program content and outcomes with third-party, industry-based certifications.

**Partner Agency**

Texas Higher Education Coordinating Board

**Action****Start Date    End Date**

Develop discipline-specific statewide advisory groups to provide input concerning skills, certifications, and licenses required by business and industry.

Varies by program disciplines    FY 2019

Construct processes to develop and revise programs of study that identify relevant industry-based certifications and licenses, as well as the occupational information that can be incorporated into those programs.

FY 2016    FY 2019

Provide statewide professional development workshops, by discipline, to share best practices and improve student outcomes.

FY 2018    FY 2019

**Performance Measure**

Not applicable—qualitative

## Goal Area 2: Engage in Partnerships

Through collaborative and transparent processes, workforce system partners focus on outcomes that improve the employability of all program participants—from across a wide spectrum of capabilities and experiences—to meet employer needs. The leveraging of partnerships to enhance system alignment and outcomes depends on trust, a culture of collaboration both within and external to the workforce system, deep working relationships, and technical capacity to communicate to share needs, data, and information. Partnerships can provide for common planning, intake, and reporting on outcomes, as well as ensuring a “no wrong door” approach to the provision of workforce programs and services.

System Partner Strategy	Agency	System Objective	System Goal
Improve rehabilitation employment outcomes by establishing additional partnerships with secondary and postsecondary entities, and employers.	TWC	Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.	<i>Engage in partnerships</i>
Create greater access and effective services by promoting collaboration and regional planning.	TWC		
Increase access to, referral between, and outcomes of adult education programs and services.	TWC THECB		
Establish and leverage regional employer partnerships to benefit students pre- and post-release.	TDCJ		

**System Objective**

Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.

**Strategy**

Improve rehabilitation employment outcomes by establishing additional partnerships with secondary and postsecondary entities, and employers.

**Partner Agency**

Texas Workforce Commission

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Develop and expand partnerships with system partners, including independent school districts, educational service centers, community and technical colleges, stakeholders, and employers to increase the availability and coordination of integrated work-based learning opportunities such as work experience, pre-apprenticeship, apprenticeship, internship, job shadowing, and on-the-job training.	FY 2016	FY 2018
Develop and implement a coordinated approach to serving employers through collaboration with local workforce boards and workforce centers.	FY 2016	FY 2019
Expand collaboration with state and federal partners to increase engagement of employers, including federal contractors, to promote awareness, recruitment, hiring, and retention of qualified individuals with disabilities.	FY 2016	FY 2017
Expand partnerships with federal, state, and local partners, such as the Veterans Administration and community mental health service providers, to enhance collaboration and coordination of services for veterans with disabilities.	FY 2016	FY 2019

**Performance Measure**

- Percentage of consumers participating in integrated work-based learning activities

### **System Objective**

Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.

### **Strategy**

Create greater access and effective services by promoting collaboration and regional planning.

### **Partner Agency**

Texas Workforce Commission

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Conduct regional identification and planning in cooperation with local workforce boards, in accordance with the Workforce Innovation and Opportunity Act.	FY 2016	FY 2017
Conduct planning in cooperation with vocational rehabilitation services, in accordance with the Workforce Innovation and Opportunity Act.	FY 2016	FY 2016
Collaborate with the Texas Higher Education Coordinating Board and the Texas Education Agency on initiatives to increase access to consumer information and to develop, implement, and support effective education and training models.	FY 2016	FY 2019

### **Performance Measure**

- Percentage of individuals co-enrolled in vocational rehabilitation and workforce programs

### **System Objective**

Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.

### **Strategy**

Increase access to, referral between, and outcomes of adult education programs and services.

### **Partner Agency**

Texas Workforce Commission

### **Action**

### **Start Date**

### **End Date**

Enhance collaboration between federally funded adult education and literacy grantees and local workforce boards.

FY 2016

FY 2019

Improve the capacity of community-based providers not receiving adult education and literacy funds to provide adult education and literacy services and to effectively coordinate services with federally funded adult education and literacy grantees.

FY 2016

FY 2017

Develop and implement a student referral system between federally funded adult education and literacy providers and community and technical colleges to assist individuals seeking adult education services find a program responsive to their needs. If deemed appropriate, consider integration of community-based providers into the referral system. (Referral system measure to be developed prior to implementation.)

FY 2016

FY 2019

### **Performance Measure**

- Percentage of individuals co-enrolled in adult education and workforce programs

### **System Objective**

Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.

### **Strategy**

Increase access to, referral between, and outcomes of adult education programs and services.

### **Partner Agency**

Texas Higher Education Coordinating Board

### **Action**

### **Start Date   End Date**

Increase the number of community and technical colleges providing targeted adult education services that transition students into higher education.

FY 2016

FY 2019

Provide statewide program support and professional development to improve targeted adult education services provided through community and technical colleges.

FY 2016

FY 2019

Increase the number of community and technical colleges partnering with local adult education and literacy providers to support the transition of students into and through higher education.

FY 2016

FY 2019

Develop and implement a student referral system between federally funded adult education and literacy providers and community and technical colleges to assist individuals seeking adult education services find a program responsive to their needs. If deemed appropriate, consider integration of community-based providers into the referral system. (Referral system measure to be developed prior to implementation.)

FY 2016

FY 2019

### **Performance Measures**

- Educational attainment rate of students successfully completing Accelerate TEXAS programs at community and technical colleges
- Entered employment rate of students successfully completing Accelerate TEXAS programs at community and technical colleges

**System Objective**

Expand partnerships with system partners and stakeholders to promote collaboration, joint planning, and enhanced participant outcomes.

**Strategy**

Establish and leverage regional employer partnerships to benefit students pre- and post-release.

**Partner Agency**

Windham School District (Texas Department of Criminal Justice)

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Develop partnerships with employers and implement pre-employment career and technical education programs to meet needs of employers for potential student employment.	FY 2016	FY 2019
Expand opportunities for offenders, pre- and post-release, through career expos and reentry job fairs to access service providers and employment in order to reenter society successfully.	FY 2016	FY 2018
Continue to provide access and develop awareness of employment opportunities, service providers, and employer surveys on the Windham School District website.	FY 2016	FY 2019
Establish semi-annual employer survey on pre-employment career and technical education activities and hiring experiences.	FY 2016	FY 2019

**Performance Measure**

- Rate of employer satisfaction

### Goal Area 3: Align System Elements

By improving transitions, aligning programs, and ensuring portability and transferability, Texas improves access and the ability of all students to complete programs of study, earn credentials, transition to further education, and gain critical employability skills. Through the implementation of a common technical core curriculum that is recognized statewide, programs of study can enhance delivery efficiency, dual-credit effectiveness, and improve student outcomes and transitions. Texas employers are better positioned to find and hire the employees they need through an enhanced education and training pipeline.

System Partner Strategy	Agency	System Objective	System Goal
Develop and implement programs of study in community and technical colleges and align with secondary programs of study.	TEA THECB	Improve and enhance services, programs, and policies to facilitate effective and efficient transitions.	<i>Align system elements</i>
Enhance transition services for students and youth with disabilities to competitive integrated employment or to postsecondary education and training followed by competitive integrated employment.	TWC		
Ensure consistent credit transfer based on programs of study and common technical core curriculum.	THECB	Develop and implement policies and processes to ensure portable and transferrable credit and credentials.	
Expand career and technical education courses to provide additional opportunities for dual credit.	TJJD		

### **System Objective**

Improve and enhance services, programs, and policies to facilitate effective and efficient transitions.

### **Strategy**

Develop and implement programs of study in community and technical colleges and align with secondary programs of study.

### **Partner Agency**

Texas Education Agency

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Collaborate with the Texas Higher Education Coordinating Board to develop and implement programs of study to facilitate secondary to postsecondary student transition.	Ongoing	FY 2019
Align secondary and postsecondary programs of study systems by working with the Texas Higher Education Coordinating Board.	Ongoing	FY 2019
Collaborate with the Texas Higher Education Coordinating Board to develop and adopt policies and procedures that facilitate consistent credit transfer from secondary to postsecondary-based programs of study.	Ongoing	FY 2019
Enhance programs of study by including statewide-articulated, Advanced Technical Credit, and Workforce Education Course Manual courses.	Ongoing	FY 2019
Provide training to secondary administrators, counselors, and teachers in the proper use of programs of study.	Ongoing	FY 2019
Collaborate with relevant state agencies to align policies related to workforce education.	Ongoing	FY 2019

### **Performance Measure**

- Percentage of grade twelve secondary students who receive career and technical education dual credit, enroll in a two-year institution, and receive credit at the institution

**System Objective**

Improve and enhance services, programs, and policies to facilitate effective and efficient transitions.

**Strategy**

Develop and implement programs of study in community and technical colleges and align with secondary programs of study.

**Partner Agency**

Texas Higher Education Coordinating Board

**Action****Start Date End Date**

Develop and adopt programs of study that provide a coordinated non-duplicative sequence of secondary and postsecondary academic and career and technical education courses designed to help students transition seamlessly from high school to a public community or technical college.

FY 2016 FY 2019

Expand and support program of study initiatives and adoption rate of a common group of Workforce Education Course Manual courses per discipline.

FY 2017 FY 2017

Align secondary and postsecondary programs of study systems by working with the Texas Education Agency.

FY 2018 FY 2019

Facilitate consistent credit transfer from secondary to postsecondary based on programs of study by working with the Texas Education Agency to develop and adopt relevant policies, procedures, and rules.

Ongoing FY 2019

**Performance Measure**

- Career and technical education time to degree

## System Objective

Improve and enhance services, programs, and policies to facilitate effective and efficient transitions.

## Strategy

Enhance transition services for students and youth with disabilities to competitive integrated employment or to postsecondary education and training followed by competitive integrated employment.

## Partner Agency

Texas Workforce Commission

Action	Start Date	End Date
Evaluate, identify, and implement revisions to vocational rehabilitation program policy, procedures, and staffing strategies to improve consistency and effectiveness in the delivery of transition services for students and youth with disabilities.	FY 2016	FY 2016
Develop and deploy a core group of subject matter experts to assist in implementation of program improvements in transition services, including the development and coordination of training and guidance to increase staff capacity to assist students and youth with disabilities.	FY 2016	FY 2017
Collaborate with other states, providers, and system partners to develop policy, curriculum, resources, and staff capacity to enhance provision of transition services for students and youth with disabilities. [Transition services include but are not limited to career exploration, work-based learning experiences, counseling on opportunities for postsecondary education and training, job readiness skills training, and self-advocacy instruction.]	FY 2016	FY 2019

## Performance Measures

- Percentage of students and youth with disabilities who participated in transition services and subsequently enrolled in postsecondary education and training
- Percentage of students and youth with disabilities who participated in transition services and subsequently entered competitive integrated employment

**System Objective**

Develop and implement policies and processes to ensure portable and transferrable credit and credentials.

**Strategy**

Ensure consistent credit transfer based on programs of study and common technical core curriculum.

**Partner Agency**

Texas Higher Education Coordinating Board

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Solicit input from business and industry in the identification of essential knowledge, skills, and abilities required for each program of study.	Ongoing	FY 2019
Conduct discipline-specific workshops with faculty to identify common program-level learning outcomes and common sequences of courses.	FY 2016	FY 2019
Publish statewide programs of study on the Texas Higher Education Coordinating Board's websites, distribute widely to other state agencies, and link to other career and technical education and workforce activities.	FY 2016	FY 2019
Revise existing rules, policies, and protocols to include adoption of programs of study.	FY 2016	FY 2016
Reduce number of Workforce Education Course Manual courses offered at only one or two colleges.	FY 2018	FY 2019

**Performance Measure**

- Percentage of community and technical college students who receive program of study-based course credit who transfer to another two-year institution and have that credit recognized

### **System Objective**

Develop and implement policies and processes to ensure portable and transferrable credit and credentials.

### **Strategy**

Expand career and technical education courses to provide additional opportunities for dual credit.

### **Partner Agency**

Texas Juvenile Justice Department

<b>Action</b>	<b>Start Date</b>	<b>End Date</b>
Contact local community colleges and technical schools to broker working relationships and begin discussions regarding dual credit opportunities.	FY 2016	FY 2016
Meet with community college and technical school representatives to outline requirements needed to assess dual credit opportunities.	FY 2016	FY 2016
Gather and provide teacher credential and other information and material request.	FY 2016	FY 2016
Coordinate and host meetings between instructors of eligible career and technical education programs and college or technical school representatives to address curriculum and data reporting.	FY2016	FY 2016
Implement dual credit courses for eligible students.		Timeline: upon completion of instructor accreditation by the Commission on Colleges of the Southern Association of Colleges and Schools.

### **Performance Measures**

- Percentage of career and technical education programs approved for dual credit
- Percentage of students successfully completing dual credit career and technical education courses

**TEA APPENDIX 4:**  
**Statewide Program of Study Overview and Framework Documents**



## Programs of Study Overview

The Division of College, Career, and Military Preparation has engaged members of the workforce, secondary education, and higher education to advise on the development of programs of study, including coherent sequences of courses, industry-based certifications, and work-based learning to ensure students are prepared for in-demand, high-skill, high-wage careers in Texas.

The proposed programs of study go into effect for the 2020-2021 school year and will allow Texas to meet the federal program approval requirements within the Strengthening CTE for the 21st Century Act (Perkins V).

### Highlights of Programs of Study Initiative

- Include occupations that meet labor market criteria to include projected job growth, annual job openings, and the state median wage
- Ensure course sequences provide district and campus flexibility in program offerings
- Lead to postsecondary education and training opportunities
- Expand opportunities for students to engage in STEM related occupations
- Include one-page resources to assist in scheduling as well as career planning conversations with students
- Allow districts to request regional programs of study supported by regional workforce data
- Align programs of study to endorsements

### Benefits of Programs of Study Initiative

- Align education to the diverse needs of the Texas' economy to increase opportunities for students
- Improve data collection and reporting of CTE concentrators for districts
- Inform future TEKS revisions through gap analysis between course standards and job skills
- Ensure alignment of teacher certifications to the updated programs of study

### Programs of Study Implementation Considerations

- Course sequences within each program of study will be used for federal reporting of CTE concentrators CTE completers:
  - New federal definition for a CTE concentrator, as outlined in Perkins V, is the completion of two courses (for two or more credits) within a program of study.
  - Proposed definition for a CTE completer to be the completion of three or more courses for four or more credits including one level 3 or level 4 course.
- Perkins funds can be used to support statewide or approved regional programs of study.
- Current CTE courses not included in the updated programs of study will remain available for districts to offer and can be supported with State CTE funds.



## Programs of Study Overview

### Programs of Study Definition

Perkins V describes a program of study as a coordinated, nonduplicative sequence of academic and technical content at the secondary and postsecondary level that:

- Incorporates challenging state academic standards
- Addresses academic, technical, and employability skills
- Aligns with the needs of industries in the state, regional, and/or local economy
- Progresses in specificity, beginning with all aspects of industry and leading to more occupation specific instruction
- Has multiple entry and exit points that incorporate credentialing
- Culminates in the attainment of a recognized postsecondary credential

### Changes to Career Clusters:

Labor market analysis identified several areas where occupations and postsecondary training overlap across career clusters. The areas of overlap include Business, Marketing, and Finance as well as Law, Public Safety, Corrections, and Security and Government and Public Administration. A new Energy career cluster was created to address Texas' diverse economic landscape. Changes to the career clusters are summarized below:

16 Career Clusters	Change to career cluster
Agriculture, Food, & Natural Resources	No Change
Architecture & Construction	No Change
Arts, A/V Technology, & Communications	No Change
Business Management & Administration	Combined with Marketing and Finance
Government & Public Administration	Combined with Law and Public Safety
Education & Training	No Change
Finance	Combined with Marketing and Business
Health Science	No Change
Hospitality & Tourism	No Change
Human Services	No Change
Information Technology	No Change
Law, Public Safety, Corrections, & Security	Combined with Government
Manufacturing	No Change
Marketing	Combined with Business and Finance
STEM	No Change
Transportation, Distribution, & Logistics	No Change



## Programs of Study Overview

### Programs of Study Methodology

The TEA conducted a process to identify high wage, high demand occupations in Texas to ensure alignment between industry and postsecondary education. The process included stakeholders from the Texas Workforce Commission, Texas Workforce Investment Council, and the Texas Higher Education Coordinating Board. The course sequencing methodology backwards-mapped occupations from job knowledge and skill demand, through postsecondary preparation (college, trade schools, certifications, etc.), to secondary education and triangulated data sources for the best results of labor projections alongside real-time labor data.

Phase I: Foundation occupations were identified utilizing median growth rate of 17%, median annual salary of \$35,339, and a minimum annual openings floor of 500, each based on the data from all occupations in Texas. Occupations that were related to the foundation occupations were identified to form groupings of occupations and initial focus for programs of study.

Phase II: Groupings of occupations were formed based on: similarities in detailed work activities; directly or closely related postsecondary training and education programs; or directly or closely related through standard occupational classification by ONET. These groupings of occupations were compared to the median data of all occupations in Texas.

Data sources include [EMSI](#) data (real-time labor market information), labor projections, Local Workforce Boards Targeted Occupations, and the Bureau of Labor Statistics.

### Considerations for Endorsement Alignment

The statewide programs of study contain course sequences that lead to endorsements. This initiative does not replace endorsements but adds additional support to ensure students have access to CTE programs that lead to in-demand, high-skills, and high-wage occupations. Recommended endorsements are identified on the programs of study resource documents. It remains important for districts to advise students on earning an endorsement. While current rules are in place, future recommendations will be made to the SBOE regarding the following items:

- Allow for additional STEM focused programs of study to qualify for the STEM endorsement
- Allow for innovative courses to serve as the final course in a sequence to earn an endorsement
- Allow for the proposed Practicum in Entrepreneurship course to meet endorsements across multiple career clusters

## COURSES

### LEVEL 1

Principles of Agriculture, Food, and Natural Resources

### LEVEL 2

Professional Standards in Agribusiness  
Professional Communications

### LEVEL 3

Agribusiness Management and Marketing/Lab

### LEVEL 4

Agricultural Leadership, Research, and Communications  
Practicum in Agriculture, Food, and Natural Resources  
Practicum in Entrepreneurship (TBD)  
Career Preparation I



## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Certified Professional Public Buyer	Agricultural Business and Management, General		
		Banking and Financial Support Services	Finance, General	
		Advertising	Financial Mathematics	
		Marketing/ Marketing Management, General		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Farmers, Ranchers, and Other Agricultural Managers	\$59,134	405	9%
Farm and Ranch Loan Officers	\$45,594	268	25%
Agricultural Advertising and Promotions Managers	\$94,515	164	20%
Buyers and Purchasing Agents, Farm Products	\$46,488	102	20%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Tour a farm machinery products company  
Texas FFA

**Work Based Learning Activities:**  
Internship with a farm machinery products company;  
Work on a farm or ranch

The Agribusiness program of study explores the occupations and educational opportunities associated with the business of farming and agriculturally-related business that supplies farm inputs, such as machinery and seeds. This program of study may also include exploration into the marketing of farm products, the purchase of farm products either for further processing or resale, and grading or classifying unprocessed food or other agricultural products.

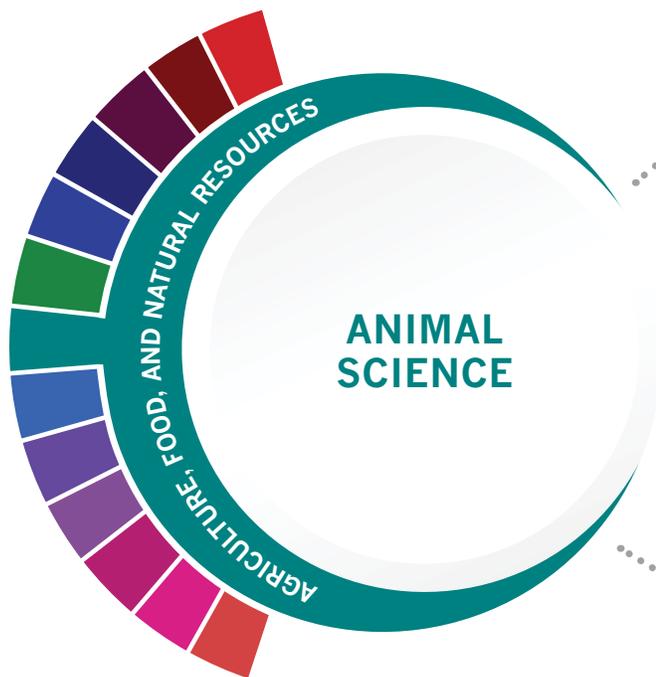


The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Successful completion of the Agribusiness program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



**LEVEL 1**

Principles of Agriculture, Food, and Natural Resources

**LEVEL 2**

Small Animal Management  
Equine Science

**LEVEL 3**

Livestock Production/Lab

**LEVEL 4**

Advanced Animal Science  
Veterinary Medical Applications/Lab  
Practicum in Agriculture, Food, and Natural Resources  
Project-Based Research  
Scientific Research and Design

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Licensed Veterinary Technician	Pet Groomer	Food Science and Technology	Animal Sciences	Genetics
Feedyard Technician in Cattle Care and Handling	Veterinary Technician	Veterinary Studies	Agriculture	Veterinary Medicine
Certified Veterinary Assistant	Licensed Breeder	Biotechnology Laboratory Technician	Biology	Biological and Physical Sciences
		Biology Technician	Zoology/ Animal Biology	Biological and Biomedical Sciences

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Animal Breeders	\$39,135	28	9%
Animal Scientists	\$57,533	22	12%
Medical Scientists	\$63,898	435	27%
Veterinarians	\$93,496	294	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Texas FFA

**Work Based Learning Activities:**  
Agri-Science Fair  
4H  
Volunteer at a local farm or veterinary office

The Animal Science program of study focuses on the science, research, and business of animals and other living organisms. It teaches students how to apply biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students may also research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

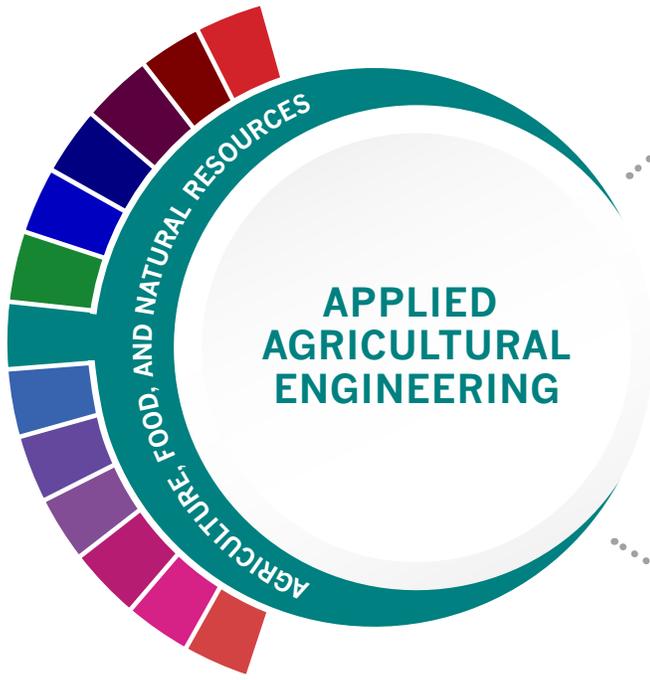


The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Successful completion of the Animal Science program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Agriculture, Food, and Natural Resources

### LEVEL 2

Agricultural Mechanics and Metal Technologies/Lab

### LEVEL 3

Agricultural Structures Design and Fabrications/Lab  
Agricultural Power Systems/Lab  
Geographic Information Systems for Agriculture (TBD)

### LEVEL 4

Agricultural Equipment Design and Fabrication/Lab  
Practicum in Agriculture, Food, and Natural Resources  
Project-Based Research  
Scientific Research and Design

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
OSHA 30 Hour General Industry	Certified Professional Agronomist	Heavy Equipment Maintenance Technology/Technician	Agricultural Engineering	
Feedyard Technician in Machinery, Operation, Repair and Maintenance	Certified Reliability Engineer	Agricultural Mechanization, General	Agricultural Mechanization, General	
AWS SENSE Welding Level 1	Certified Irrigation Designer	Small Engine Mechanics and Repair Technology/Technician		
AWS D1.1 or D9.1 Certification	Fluid Power Mobile Hydraulic Mechanic	Welding Technology/Welder		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Outdoor Power Equipment and Other Small Engine Mechanics	\$32,406	366	16%
Welders	\$41,350	6,171	9%
Farm Equipment Mechanics and Service Technicians	\$39,915	304	17%
Mobile Heavy Equipment Mechanics	\$47,299	1,627	16%
Agricultural Engineers	\$64,792	9	13%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Tour a farm products or machinery plant  
Texas FFA

**Work Based Learning Activities:**  
Earn a welding certification; intern at a farm products or machinery plant

The Applied Agricultural Engineering program of study explores the occupations and educational opportunities associated with applying knowledge of engineering technology and biological science to agricultural problems concerned with power and machinery, electrification, structures, soil and water conservation, and processing agricultural products. This program of study may also include exploration into diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.



The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Successful completion of this program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Agriculture, Food, and Natural Resources

### LEVEL 2

Wildlife, Fisheries, and Ecology Management/Lab  
Forestry and Woodland Ecology Systems/Lab

### LEVEL 3

Range Ecology Management/Lab  
Energy and Natural Resources Technology/Lab

### LEVEL 4

Advanced Energy and Natural Resource/Lab  
Practicum in Agriculture, Food, and Natural Resources  
Project-Based Research  
Scientific Research and Design

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Wastewater Collections, Class 1	Board Certified Environmental Engineer - Hazardous Waste Management	Environmental Science		
Water Operators, Class D	Certified Water Technologist	Environmental Studies	Environmental/Environmental Health Engineering	
OSHA Hazardous Waste Operations and Emergency Response	Certified Environmental Scientist	Wildlife, Fish, and Woodlands Science and Management		
	Certified in Public Health	Environmental Engineering Technology/Environmental Technology	Natural Resources Law Enforcement and Protective Services	Fishing and Fisheries Science and Management
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Environmental Engineering Technicians	\$53,352	101	32%
Environmental Engineers	\$86,757	288	25%
Environmental Science and Protection Technicians, Including Health	\$40,268	508	17%
Environmental Scientists and Specialists, Including Health	\$77,896	644	24%
Zoologists and Wildlife Biologists	\$67,309	45	32%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Attend summer leadership events  
Texas FFA

**Work Based Learning Activities:**  
Intern at a waste treatment plant

The Environmental and Natural Resources program of study explores the occupations and educational opportunities associated with the research, design, and planning of engineering or technical duties in the prevention and control of environmental hazards. This program of study may also include exploration into conducting research for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population.



The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Successful completion of the Environmental and Natural Resources program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES

### LEVEL 1

Principles of Agriculture, Food, and Natural Resources

### LEVEL 2

Food Technology and Safety/Lab

### LEVEL 3

Food Processing/Lab

### LEVEL 4

Practicum in Agriculture, Food, and Natural Resources  
Project Based Research  
Scientific Research and Design

## FOOD SCIENCE AND TECHNOLOGY

AGRICULTURE, FOOD, AND NATURAL RESOURCES

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
	Certified Professional Agronomist	Food Science	Agricultural and Food Products Processing	Quality Control Technology/Technician
	Certified Crop Advisor		Food Science and Nutrition	
	Certified Weighing Salespersons		Food Science and Technology	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Agricultural and Food Science Technicians	\$34,382	236	11%
Supervisors of Production and Operating	\$62,171	5,094	9%
Inspectors, Testers, Sorters, Samplers, and Weighers	\$37,689	6653	9%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Tour a food products processing facility  
Texas FFA

#### Work Based Learning Activities:

Intern at a food products processing facility

The Food Science and Technology program of study explores the occupations and educational opportunities associated with working with agricultural and food scientists in food, fiber, and animal research, production, and processing. This program of study may also include assisting with animal breeding and nutrition, and conducting tests and experiments to improve yield and quality of crops or to increase the resistance of plants and animals to disease or insects.

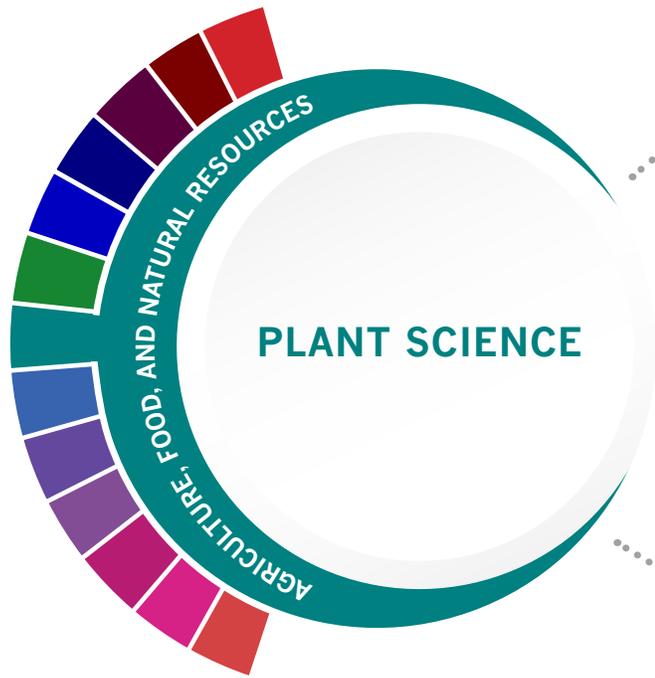


The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Successful completion of the Food Science and Technology program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Agriculture, Food, and Natural Resources

### LEVEL 2

Landscape Design and Management  
Turf Grass Management  
Greenhouse Operation and Production/Lab

### LEVEL 3

Floral Design/Lab  
Horticultural Science/Lab  
Viticulture

### LEVEL 4

Practicum in Agriculture, Food, and Natural Resources  
Advanced Plant and Soil Science  
Advanced Floral Design  
Project-Based Research  
Scientific Research and Design

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Landscape Irrigation Technician License	Pesticide Applicator	Applied Horticulture/ Horticulture Operations, General		
Commercial/ Noncommercial Pesticide Applicator	Certified Floral Designer	Ornamental Horticulture	Agronomy and Crop Science	
Texas State Floral Association Level One Floral Certification	Accredited Member of AIFD	Agricultural Business and Management, General		
Texas State Floral Association Level Two Floral Certification	Landscape Industry Certified Technician	Turf and Turfgrass Management	Farm/Farm and Ranch Management	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Soil and Plant Scientists	\$54,662	116	21%
Tree Trimmers and Pruners	\$32,240	589	14%
Pesticide Handlers, Sprayers, and Applicators	\$36,733	196	22%
Landscaping Supervisors	\$44,408	807	19%
Biological Technicians	\$42,931	452	17%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Texas FFA

**Work Based Learning Activities:**  
Work part-time at a florist;  
start or work for a local landscaping business

The Plant Science program of study focuses on the science, research, and business of plants and other living organisms. It teaches students how to apply biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

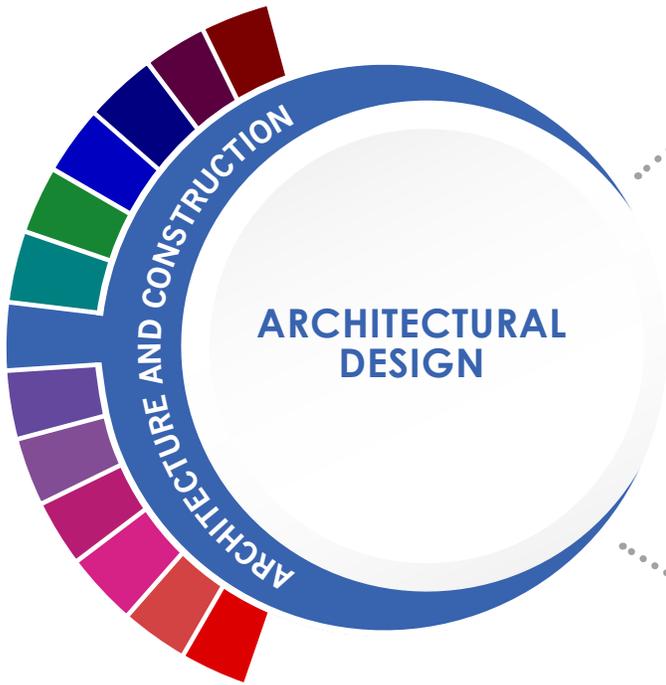


The Agriculture, Food, and Natural Resources (AFNR) Career Cluster® focuses on the essential elements of life—food, water, land, and air. This career cluster includes a diverse spectrum of occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist. It also includes non-traditional agricultural occupations like wind energy, solar energy, and oil and gas production.

Successful completion of the Plant Science program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Architecture

### LEVEL 2

Architectural Design I  
Interior Design I  
Computer Aided Drafting for Architecture (TBD)

### LEVEL 3

Architectural Design II  
Interior Design II  
Civil Engineering and Architecture (PLTW)

### LEVEL 4

Practicum in Architectural Design  
Career Preparation I

HIGH SCHOOL / INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S / DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User in AutoCAD	Certified Photogrammetric Technologist	Architecture		
Autodesk Certified Professional or User in AutoCAD Civil 3D	Certified Development, Design & Construction Professional	Interior Design	Interior Architecture	
Autodesk Certified Professional or User in Autodesk Revit Architecture	National Council Certified Interior Designer	Civil Engineering, General		
Autodesk Certified Professional or User in Autodesk Revit MEP Electrical	LEED AP Building Design & Construction	Geographic Information Science and Cartography		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Architects	\$77,043	808	16%
Geographic Information Analysts and Surveyors	\$58,926	162	27%
Architectural/ Civil Drafters	\$50,170	1,068	9%
Construction Managers	\$87,402	2,401	14%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Shadow an architect, interior designer, or civil engineer.  
SkillsUSA

#### Work Based Learning Activities:

Intern at an architecture firm.

The Architectural Design program of study explores the occupations and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study may also include exploration into collecting and interpreting geographic information, researching and preparing maps, and interior design.

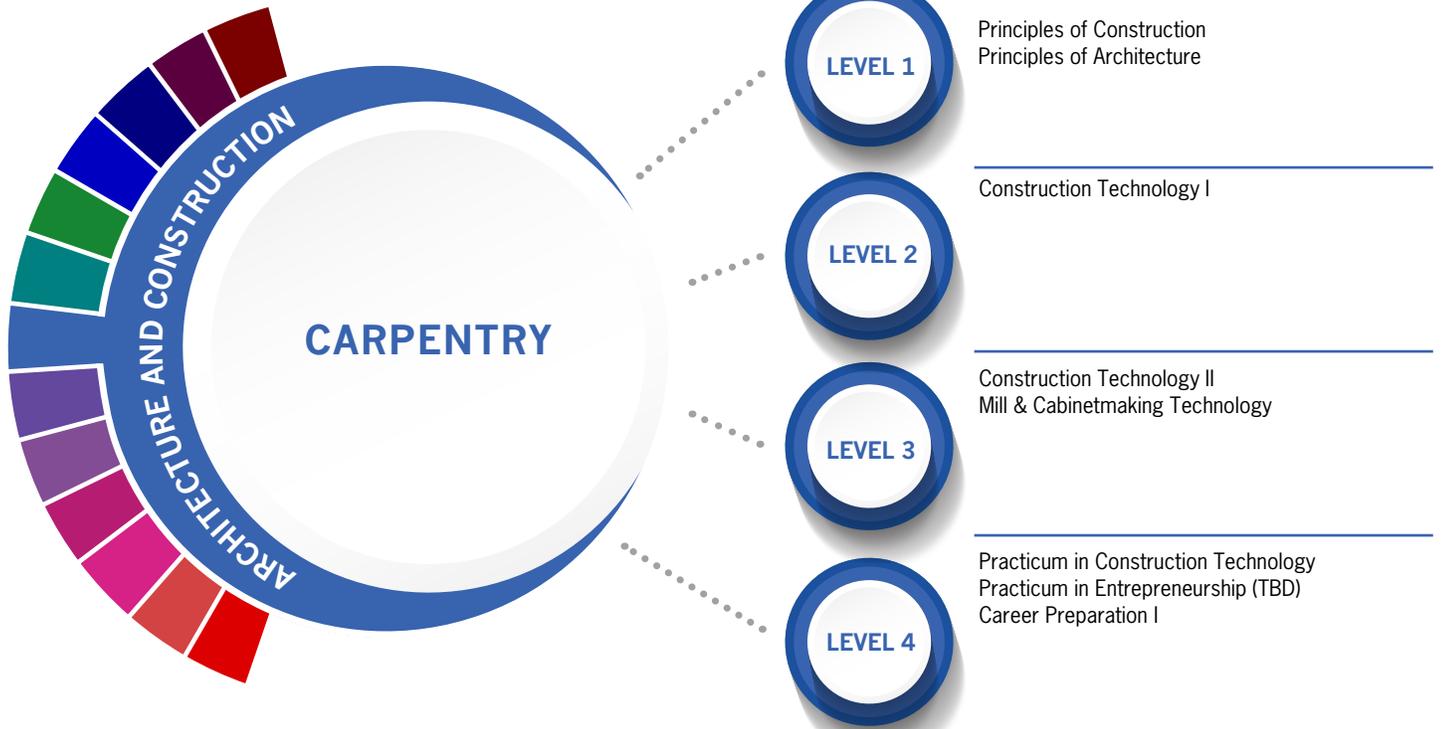


The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Construction Design program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019



## COURSES



HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
NCCER Carpentry, Level 1 & 2	Certified Lead Carpenter	Carpentry/Carpenter	Construction Science	Construction Management	Carpenters	\$35,922	5,031	26%
NCCER Commercial Carpenter	Certified Installer	Industrial Mechanics and Maintenance Technology			Cost Estimators	\$63,939	2,239	21%
NCCER Core Curriculum	Certified Door Consultant							
NCCER Construction Technology	Fluid Power Connector and Conductor							

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

**WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES**

**Exploration Activities:** Shadow a carpenter or millwright. SkillUSA

**Work Based Learning Activities:** Obtain an NCCER certification in Millwright Level 1 or Carpentry Level 1.

The Carpentry program of study explores the occupations and educational opportunities related to constructing, installing, or repairing structures and fixtures made of wood, such as concrete forms (including frameworks, partitions, joists, studding, rafters, and stairways). This program of study may also include exploration into installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.



The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Carpentry program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019





## COURSES

**LEVEL 1**

Principles of Construction

**LEVEL 2**

Building Maintenance Technology I  
Construction Management I

**LEVEL 3**

Building Maintenance Technology II  
Construction Management II

**LEVEL 4**

Practicum in Construction Management  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
NCCER Construction Technology	Code Enforcement Officer, Texas Department of Health Code Enforcement	Construction Engineering Technology/Technician		Materials Engineering
NCCER Core Curriculum	Certified Cost Estimator/ Analyst	Business Administration and Management, General		
OSHA 30 Hour Construction	Certified Professional Estimator	Mechanical Engineering		
NCCER Construction Site Safety Technician	Structural Masonry Special Inspector	Business/Commerce, General	Manufacturing Engineering	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Construction and Building Inspectors	\$53,914	983	17%
Cost Estimators	\$53,939	2,239	21%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**

Shadow a building  
inspector or cost  
estimator  
SkillsUSA

**Work Based Learning  
Activities:**

Intern with a construction  
company shadowing project  
managers or inspectors

The Building Codes and Inspection program of study explores the occupations and educational opportunities associated with cost estimates for construction projects or services to aid management in bidding on or determining the price of products or services. This program of study may also include exploration into inspecting structures using engineering skills to determine structural soundness and compliance with specifications, building codes, and other regulations.



The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Building Codes and Inspection program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES

Principles of Construction

LEVEL 1

Electrical Technology I

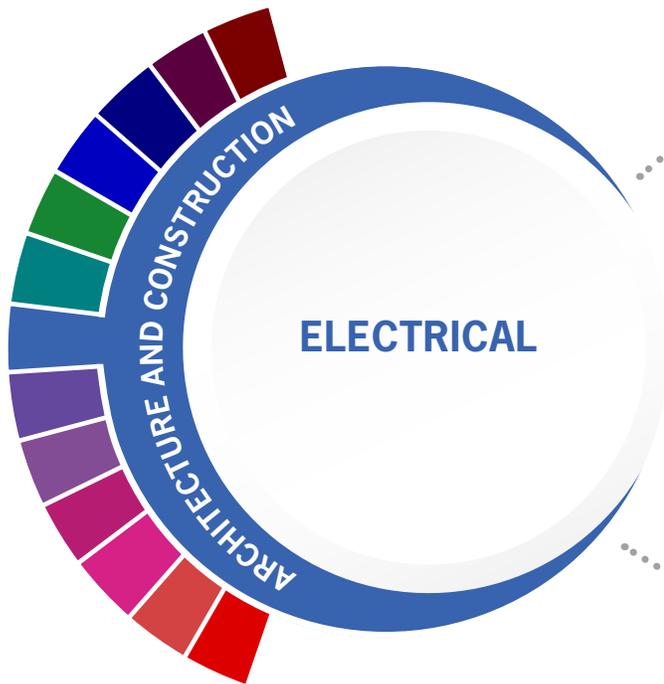
LEVEL 2

Electrical Technology II

LEVEL 3

Practicum in Construction Technology  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

LEVEL 4



HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
NCCER Electrical, Level 1 & 2	Electrical Plans Examiner	Electrician	Construction Science	Construction Management	Electrical Linemen	\$54,184	1,314	28%
NCCER Electronic Systems Technician, Level 1 & 2	Certified Electrical Inspector - Master	Communications Systems Installation and Repair Technology			Electricians	\$44,013	8,460	21%
Electrical Apprenticeship Certificate, Level 1	Fiber Optics Technician - Outside Plant				Electrical and Electronics Installers	\$37,544	245	19%
NCCER Commercial Electrician	Certification in Fire Alarm Systems - Level 1				Security and Fire Alarm Installers	\$43,638	1,112	22%
					Telecommunication Line Installers and Repairers	\$49,150	1,228	10%
Additional industry based certification information is available from the TEA CTE website.					<b>WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES</b>			
For more information on postsecondary options for this program of study, visit <a href="http://TXCTE.org">TXCTE.org</a> .					<b>Exploration Activities:</b> Shadow an electrician or fiber optics line installer SkillsUSA		<b>Work Based Learning Activities:</b> Intern or shadow an electrician	

The Electrical program of study explores the occupations and educational opportunities associated with installing, maintaining, and repairing electrical wiring, equipment, and fixtures. This program of study may also include exploration into installing and repairing telecommunications cable including fiber optics.

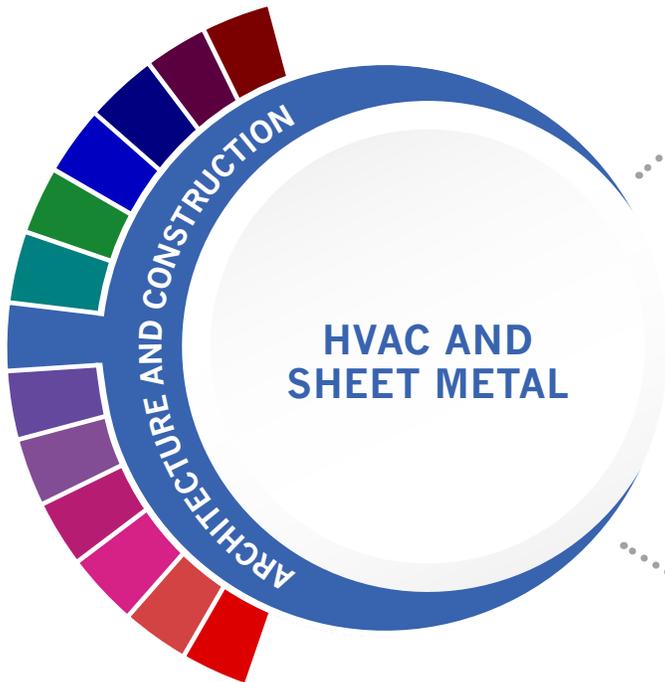


The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Electrical Program of Study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Construction

### LEVEL 2

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology I

### LEVEL 3

Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II  
Sheet Metal (TBD)

### LEVEL 4

Practicum in Construction Technology  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Refrigerant Handling (EPA 608)	Residential HVAC Design for Quality Installation	Business Administration and Management, General		
OSHA 30 Hour Construction	Certified Cost Technician	Mechanical Engineering		
NCCER HVAC, Level 1	Precision Sheet Metal Operator Certification	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician	Construction Engineering Technology/Technician	Construction Engineering
NCCER Sheet Metal, Level 1	Certified Ventilation System Inspector	Business/Commerce, General		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Heating, Air Conditioning, and Refrigeration Mechanics	\$41,808	3,356	26%
Sheet Metal Workers	\$37,419	1,479	17%
Cost Estimators	\$63,939	2,239	21%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Shadow an HVAC worker or cost estimator  
SkillUSA

**Work Based Learning Activities:**  
Intern with a company that works with HVAC and/or sheetmetal

The HVAC and Sheet Metal program of study explores the occupations and educational opportunities associated with installing, serving, or repairing heating and air conditioning systems and also the fabrication, assembly, installation, and repair of sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. This program of study may also include exploration into preparing cost estimates for certain construction projects involving heating and air conditioning and sheet metal.

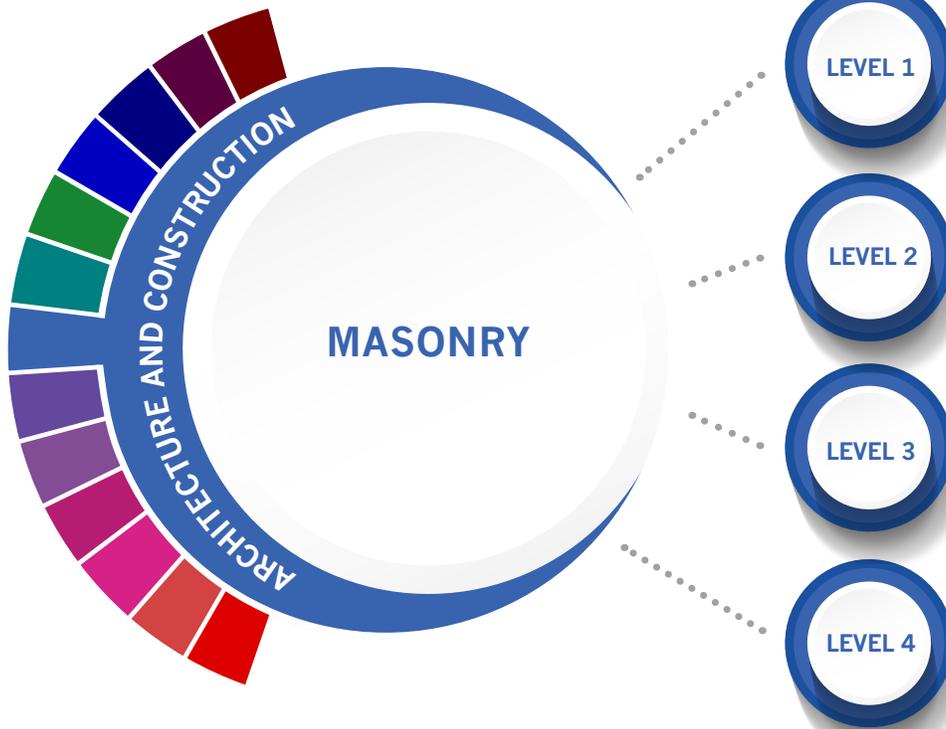


The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the HVAC and Sheet Metal program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



LEVEL 1  
Principles of Construction

LEVEL 2  
Masonry Technology I

LEVEL 3  
Masonry Technology II

LEVEL 4  
Practicum in Masonry Technology  
Practicum in Construction Technology  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
NCCER Masonry, Level 1 & 2	Structural Masonry Special Inspector	Mason/ Masonry	Construction Science	Construction Management	Brickmasons and Blockmasons	\$44,013	605	47%
NCCER Core Curriculum	Structural Steel and Bolting Special Inspector				Cement Masons and Concrete Finishers	\$32,739	2,883	12%
NCCER Construction Technology, Level 1	Masonry Contractor				Cost Estimators	\$63,939	2,239	21%
NCCER Weatherization, Level 1	Masonry Field Testing Technician							

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Job shadow a brickmason, stonemason, or ironworker.  
SkillsUSA

#### Work Based Learning Activities:

Intern with a person working within masonry.

The Masonry program of study explores the occupations and educational opportunities related to laying and binding materials, such as brick, structural tile, concrete block, and other types of mortar and substances to construct or repair walls and other structures. This program of study may also include exploration into raising and uniting iron or steel to form completed structures or structural frameworks, and building structures using stone.

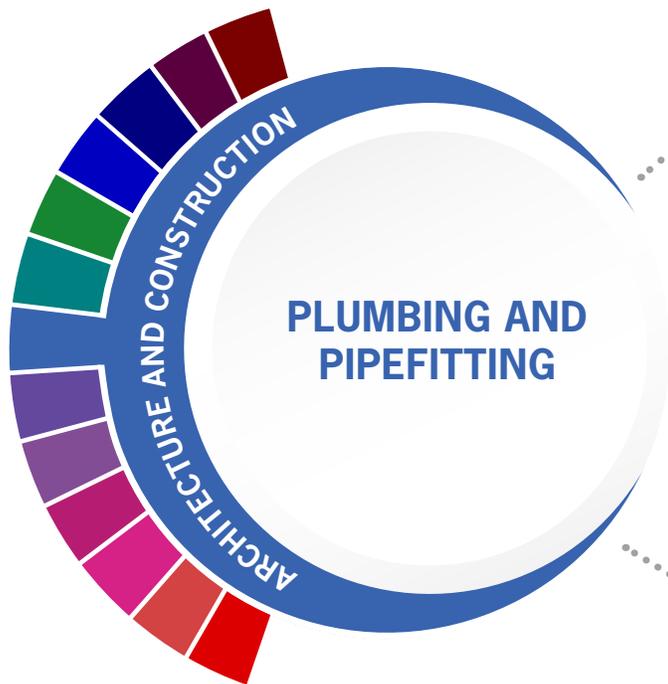


The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Masonry program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



**LEVEL 1**

Principles of Construction  
Introduction to Welding

**LEVEL 2**

Plumbing Technology I  
Pipefitting Technology I

**LEVEL 3**

Plumbing Technology II  
Pipefitting Technology II

**LEVEL 4**

Practicum in Construction Technology  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
NCCER Pipefitting, Level 1	Commercial Plumbing Inspector	Plumbing Technology/ Plumber	Construction Science	Construction Management
NCCER Plumbing, Level 1 & 2	Journey Level Pipefitter- Steamfitter	Electrical and Power Transmission Installation/ Installer, General	Operations Management and Supervision	
NCCER Construction Technology	Plumbing Plans Inspector	Pipefitting/ Pipefitter and Sprinkler Fitter		
Tradesman Plumber - Limited License	Certified Service Manager	High Performance and Custom Engine Technician/ Mechanic		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit  
TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Mechanics, Installers, and Repairers	\$63,710	4,243	17%
Plumbers, Pipefitters and Steamfitters	\$44,928	5,765	23%
Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters	\$30,098	1,567	18%
Pipe Installers	\$31,616	802	21%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Job shadow a plumber,  
pipefitter, or steamfitter  
SkillsUSA

**Work Based Learning  
Activities:**  
Obtain a Core Curriculum  
NCCER certification in  
Pipefitting Level 1 or  
Plumbing Level 1

The Plumbing and Pipefitting program of study explores the occupations and educational opportunities related to assembling, installing, or repairing pipes, fittings, or fixtures of heating, water, or drainage systems. This program of study may also include exploration into maintaining pipe supports or related hydraulic or pneumatic equipment for steam, hot water, heating, cooling, lubricating, sprinkling, or industrial production or processing systems.



The Architecture and Construction Career Cluster® focuses on designing, planning, managing, building, and maintaining the built environment. Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management.

Successful completion of the Plumbing and Pipefitting Program of Study will fulfill requirements of a Business and Industry  
Endorsement.

Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Arts, A/V Technology, and Communications  
Professional Communications  
Web Communications  
Digital Communications in the 21st Century

### LEVEL 2

Audio/Video Production/Lab  
Digital Audio Technology

### LEVEL 3

Audio Video Production II/Lab  
Digital Audio Technology II

### LEVEL 4

Practicum of Audio/Video Production  
Practicum of Digital Audio (TBD)  
Practicum of Entrepreneurship (TBD)

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Apple Final Cut Pro X	Certified Video Engineer	Recording Arts Technology/Technician		Communications Technology/Technician
Apple Logic Pro X	Commercial Audio Technician	Cinematography and Film/Video Production		
Adobe Certified Associate Premiere Pro	Certified AM Directional Specialist	Radio and Television Broadcasting Technology/Technician	Radio and Television	
Adobe Certified Associate Certifications	Certified Broadcast Radio Engineer	Music Technology	Agricultural Communication/Journalism	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Sound Engineering Technicians	\$39,562	79	27%
Camera Operators, Television, Video and Motion Picture	\$50,024	129	9%
Audio and Video Equipment Technicians	\$40,581	757	29%
Film and Video Editors	\$47,382	118	23%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Shadow a production team  
SkillsUSA, TSA

**Work Based Learning Activities:**  
Intern at a local television station or video production company

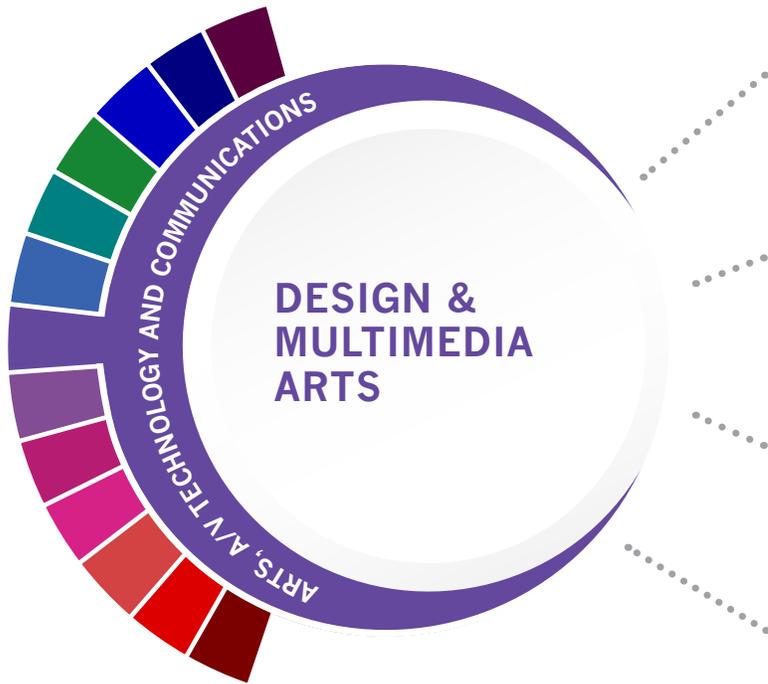
The Digital Communications program of study explores the occupations and educational opportunities associated with the production of audio and visual media formats for various purposes, such as TV broadcasts, advertising, video production, or motion pictures. This program of study may also include exploration into operating machines and equipment to record sound and images, such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment.



The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC career cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

Successful completion of the Digital Communications program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

**LEVEL 1**

Principles of Arts, A/V Technology, and Communications  
Video Game Design  
Digital Media

**LEVEL 2**

Graphic Design and Illustration I/Lab  
Animation I/Lab  
Video Game Programming  
Commercial Photography I/Lab  
Fashion Design I/Lab  
Digital Design and Media Productions  
Game Programming and Design

**LEVEL 3**

Graphic Design and Illustration II/Lab  
Animation II/Lab  
Advanced Video Game Programming  
Commercial Photography II/Lab  
Fashion Design II/Lab  
Digital Art and Animation  
3-D Modeling and Animation

**LEVEL 4**

Practicum in Graphic Design and Illustration  
Practicum in Animation  
Practicum in Commercial Photography  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Adobe Certified Associate Certifications	Certified Digital Designer	Animation, Interactive Technology, Video Graphics and Special Effects		
Adobe Certified Expert Certifications	WOW Certified Web Designer Apprentice	Graphic Design		
Apple Logic Pro X	Adobe Suite Certifications	Game and Interactive Media Design		Intermedia/Multimedia

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Graphic Designers	\$44,824	1,433	15%
Multimedia Artists and Animators	\$67,392	186	21%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**

Join a website development or coding club.  
SkillsUSA, TSA

**Work Based Learning Activities:**

Intern with a multimedia or animation studio.  
Obtain a certificate in graphic design.

The Graphic Design and Multimedia Arts program of study explores the occupations and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. This program of study may also include exploration into designing clothing and accessories, and creating special effects, animation, or other visual images using film, video, computers, or other electronic tools and media, for use in computer games, movies, music videos, and commercials.



The Arts, A/V Technology and Communications (AAVTC) Career Cluster® focuses on careers in designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design, journalism, and entertainment services. Careers in the AAVTC Career Cluster require a creative aptitude, a strong background in computer and technology applications, a strong academic foundation, and a proficiency in oral and written communication.

Successful completion of the Graphic Design & Multimedia Arts program of study will fulfill requirements of a Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Business, Marketing, and Finance  
Money Matters  
Business Information Management I/Lab

### LEVEL 2

Accounting I  
Banking and Financial Services  
Financial Mathematics

### LEVEL 3

Accounting II  
Financial Analysis  
Insurance Operations

### LEVEL 4

Securities and Investments  
Practicum in Business Management  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
QuickBooks Certified User	Certified Management Accountant	Real Estate	Accounting	Financial Accounting
Microsoft Office Specialist or Expert - Excel	Certified Internal Auditor	Financial, General		Business Administration
Certified Insurance Service Representative	Certified Income Specialist	Financial Planning and Services		Financial Planning
	Certified Public Accountant	Certified Income Specialist		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options  
for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Accountants and Auditors	\$71,469	14,436	22%
Loan Officers	\$68,598	2,419	19%
Personal Financial Advisors	\$86,965	1,861	52%
Administrative Service Managers	\$96,138	2,277	21%
Insurance Underwriters	\$66,206	594	14%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Business Professionals  
of America (BPA), Future  
Business Leaders of  
America (FBLA), and  
DECA

**Work Based Learning  
Activities:**  
Internship with local  
accounting firm;  
Microsoft Office Specialist  
(MOS) certifications

The Accounting and Financial Services program of study teaches CTE concentrators how to examine, analyze, and interpret financial records. Through this program of study, students will learn the skills necessary to perform financial services, prepare financial statements, interpret accounting records, give advice, or audit and evaluate statements prepared by others. This program of study will also introduce students to mathematical modeling tools.



The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Successful completion of the Accounting & Financial Services program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Business, Marketing, and Finance  
Business Information Management I/Lab

### LEVEL 2

Business Law  
Virtual Business  
Business Information Management II/Lab

### LEVEL 3

Business Management  
Global Business  
Human Resources Management

### LEVEL 4

Statistics and Business Decision Making  
Practicum in Business Management  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Microsoft Office Specialist or Expert - Excel	Certified Records Manager	Business Administration		
Microsoft Office Specialist or Expert - Word	Certified Facility Manager	Business/ Commerce		Business Management
Google Cloud Certified Professional - G-Suite	Certified Commercial Contracts Manager	Public Administration		
Certified Associate in Project Management	Teradata 14 Basics/ Certified Technical Specialist	Business Management	Management Science	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Administrative Service Managers	\$96,138	2,277	21%
Management Analysts	\$87,651	4,706	32%
General and Operations Managers	\$107,640	18,679	20%
Operations Research Analysts	\$78,083	1,128	38%
Supervisors of Administrative Support Workers	\$57,616	14,982	20%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Business Professionals of America (BPA),  
Future Business Leaders of America (FBLA), and  
DECA

**Work Based Learning Activities:**  
Internship with local business or chamber of commerce;

The Business Management program of study teaches CTE concentrators how to plan, direct, and coordinate the administrative services and operations of an organization. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, and allocate the use of materials and human resources. This program of study will also introduce students to mathematical modeling tools and organizational evaluation methods.

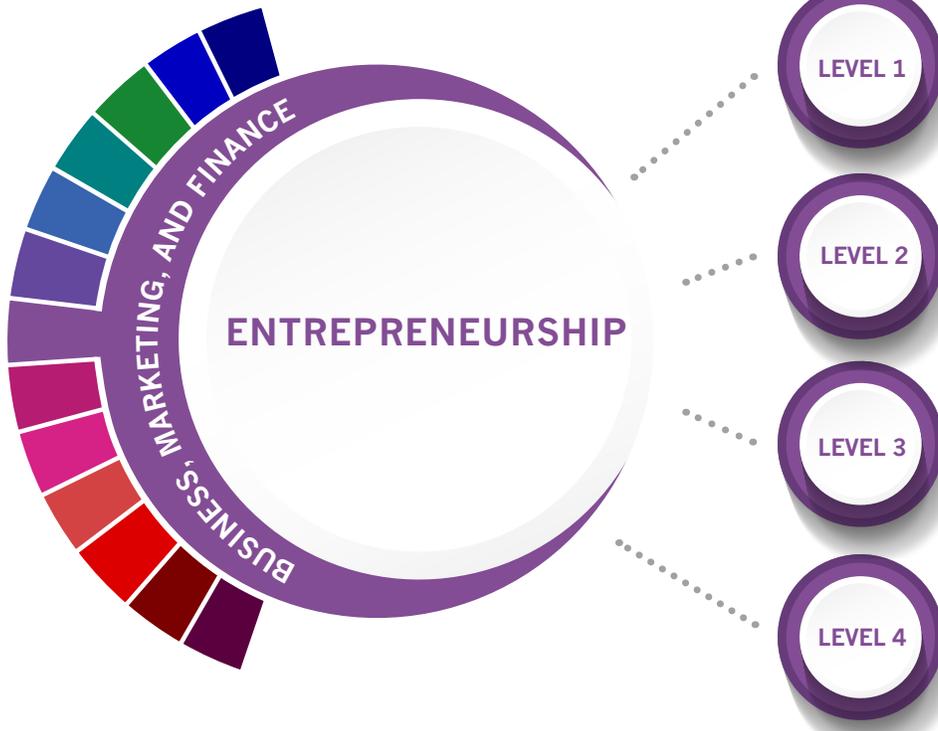


The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Successful completion of the Business Management program of study will fulfill requirements of the Business and Industry Endorsement.



## COURSES



Principles of Business, Marketing, and Finance  
Business Information Management I/Lab

Entrepreneurship

LEVEL 2

Mobile Application Development  
Entrepreneurship II (TBD)

LEVEL 3

Practicum in Business Management  
Practicum in Marketing  
Practicum in Entrepreneurship (TBD)  
Project-Based Research  
Career Preparation I

LEVEL 4

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Microsoft Office Expert - Excel	Certified Facility Manager	Business Administration and Management			General and Operations Managers	\$107,640	18,679	20%
Microsoft Office Expert - Word	Certified Management Accountant	Business/ Commerce			Management Analysts	\$87,651	4,706	32%
Entrepreneurship and Small Business	Certified Project Consultant	Public Administration			Managers, All Others	\$113,110	1,794	26%
	Accredited Management Consultant	Business Management	Management Science		<b>WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES</b>			
Additional industry based certification information is available from the TEA CTE website.					<b>Exploration Activities:</b> Business Professionals of America (BPA), Future Business Leaders of America (FBLA), and DECA	<b>Work Based Learning Activities:</b> Internship with local management consulting firm		
For more information on postsecondary options for this program of study, visit TXCTE.org.								

The Entrepreneurship program of study teaches CTE concentrators how to plan, direct, and coordinate the management and operations of public or private sector organizations. Through this program of study, students will learn the skills necessary to formulate policies, manage daily operations, analyze management structures, and plan for the use of materials and human resources.



The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Successful completion of the Entrepreneurship program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

- LEVEL 1**  
Principles of Business, Marketing, and Finance

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- LEVEL 2**  
Fashion Marketing  
Sports and Entertainment Marketing  
Virtual Business  
Marketing (TBD)

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- LEVEL 3**  
Social Media Marketing  
Advertising  
Retail Management  
Sports and Entertainment Marketing II  
Statistics and Business Decision Making  
Fundamentals of Real Estate

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- LEVEL 4**  
Advanced Marketing  
Practicum in Marketing  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL / INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S / DOCTORAL PROFESSIONAL DEGREE
Microsoft Office Specialist or Expert - Excel	Certified Product Manager	Marketing/Marketing Management, General		Marketing
Microsoft Office Specialist or Expert - Word	DMA Certified Marketing Professional	Consumer Merchandising/Retailing Management	Business Administration	
Google Analytics Individual Qualification	Certified Salesperson	International Marketing	Applied Economics	
Entrepreneurship and Small Business	Real Estate Appraiser	Business	Marketing Research	Advertising

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Marketing Research Analysts and Marketing Specialists	\$70,346	4,664	40%
Insurance Sales Agents	\$43,181	5,886	30%
First-Line Supervisors of Retail Sales Workers	\$72,550	2,826	15%
Wholesale and Retail Buyers	\$51,106	1,299	19%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Business Professionals of America (BPA), Future Business Leaders of America (FBLA), and DECA

### Work Based Learning Activities:

Internship with local marketing firm; shadow a real estate agent; operate a school store on campus

The Marketing and Sales program of study teaches CTE concentrators how to collect information to determine potential sales of a product or service and/or create a marketing campaign to market or distribute goods and services. Through this program of study, students will learn the skills necessary to understand and apply data on customer demographics, preferences, needs, and buying habits.



The Business, Marketing, and Finance Career Cluster® focuses on careers in planning, organizing, directing, and evaluating business functions essential to efficient and productive business operations.

Successful completion of the Marketing and Sales program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Education and Training  
Principles of Human Services

### LEVEL 2

Child Development  
Child Development Associate Preparation Course (TBD)

### LEVEL 3

Child Guidance

### LEVEL 4

Practicum in Early Learning (TBD)  
Project Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Child Development Associate	Early Childhood Education and Teaching		
Educational Aide I	Texas Educator Certification Program	Multicultural Early Childhood Development		
	County Librarian	Kindergarten/ Preschool Education and Training	Early Childhood	Educational, Instructional, and Curriculum Supervision
	Professional Counselor	Psychology/Sociology		Educational Leadership and Administration

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Kindergarten Teachers, except Special Education	\$53,310	1,848	17%
Preschool Teachers	\$27,851	4,330	17%
Special Education Teachers, Preschool	\$55,670	148	27%
Elementary School Teachers	\$54,140	13,121	16%
Education Administrators, Elementary and Secondary School	\$79,830	2,407	16%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Texas Association of  
Future Educators; Family,  
Career, & Community  
Leaders of America

### Work Based Learning Activities:

Teach a community  
education class;  
volunteer as a teaching  
assistant.

The Early Learning program of study focuses on early childhood education, which consists of instructing and supporting preschool and early elementary school students in activities that promote social, physical and intellectual growth as well as in basic elements of science, art, music, and literature. This program of study introduces CTE concentrators to tasks necessary for planning, directing, and coordinating activities for young children.



The Education and Training Career Cluster® focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster.

Successful completion of the Early Learning program of study will satisfy the requirements for the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Education and Training  
Principles of Human Services

### LEVEL 2

Human Growth and Development  
Child Development  
Communication and Technology in Education (TBD)

### LEVEL 3

Instructional Practices  
Special Populations (TBD)

### LEVEL 4

Practicum in Education and Training  
Project Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Educational Aide I	Texas Educator Certification Program	Teacher Education	Bilingual and Multilingual Education	Instruction and Learning
	Educational Instructional Technology	Education, General (or specific subject area)		Educational Leadership and Administration, General
	Counselor, Professional	Special Education		
	Athletic Trainer	Health and Physical Education/Fitness	Social and Philosophical Foundations of Education	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Adult Basic and Secondary Education and Literacy Teachers and Instructors	\$48,069	862	17%
Middle School Teachers, Except Special and Career/ Technical Education	\$54,510	6,407	15%
Career and Technical Education Teachers, Secondary School	\$56,360	719	9%
Special Education Teachers, Secondary School	\$56,720	980	18%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Texas Association of Future Educators, or Family, Career and Community Leaders of America

**Work Based Learning Activities:**  
Teach a community education class; intern as a teaching assistant or tutor; serve as a camp counselor.

The Teaching and Training program of study prepares students for careers related to teaching, instruction, and creation of instructional and enrichment materials. The program of study introduces CTE concentrators to a wide variety of student groups and their corresponding needs. It familiarizes them with the processes for developing curriculum, coordinating educational content, and coaching groups and individuals.

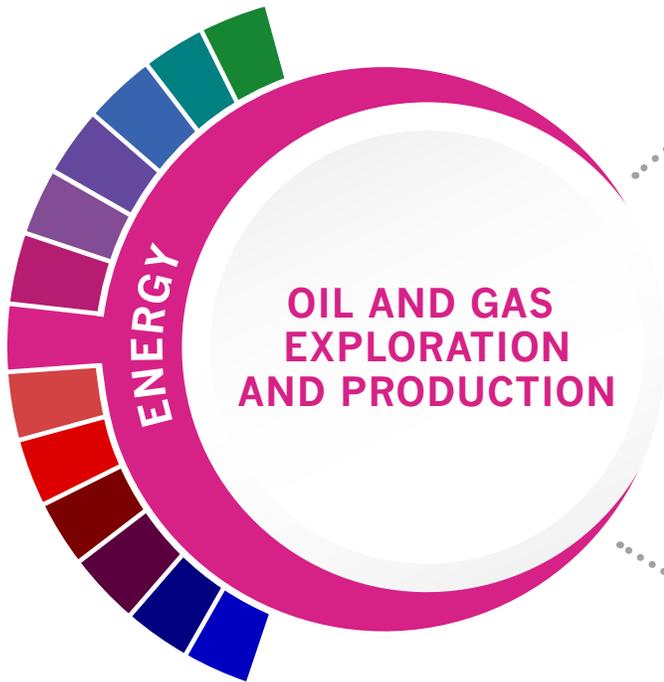


The Education and Training Career Cluster® focuses on planning, managing, and providing education and training services and related learning support services. All parts of courses are designed to introduce learners to the various careers available within the Education and Training career cluster.

Successful completion of the Teaching and Training program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Oil and Gas Production I  
Foundations of Energy

### LEVEL 2

Oil and Gas Production II  
Occupational Safety and Environmental  
Technology I

### LEVEL 3

Oil and Gas Production III  
Occupational Safety and Environmental  
Technology II  
Career Preparation I

### LEVEL 4

Oil and Gas Production IV  
Project-Based Research  
Applied Mathematics for Technical Professionals  
Practicum in Energy (TBD)

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Above Ground Storage Tanks Inspector Certification	Petroleum Engineering		
	Pressure Vessels Inspector Certification	Chemical Engineering		
	Piping Inspector Certification	Petroleum Technology/ Technician	Mechanical Engineering	
	API QUTE - Qualification of Ultrasonic Testing Examiners	Industrial Mechanics and Maintenance Technology	Industrial Engineering	

\*Includes Level I and Level II Certificates

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org)

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Extraction Workers - All Other	\$44,616	145	25%
Extraction Workers	\$34,570	1,000	7%
Drill Operators, Oil and Gas	\$52,083	925	14%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Career Preparation:**  
Intern at an oil or gas  
company, American  
Petroleum Institute  
Certification

**Work Based Learning  
Activities:**  
Read trade publications  
to understand economic  
and political issues

The Oil and Gas Exploration and Production program of study focuses on processing, refining, and distributing petroleum and gas. It introduces students to the process of regulating the flow of oil into pipelines, controlling pumping systems, and operating and maintaining machinery to generate electric power.

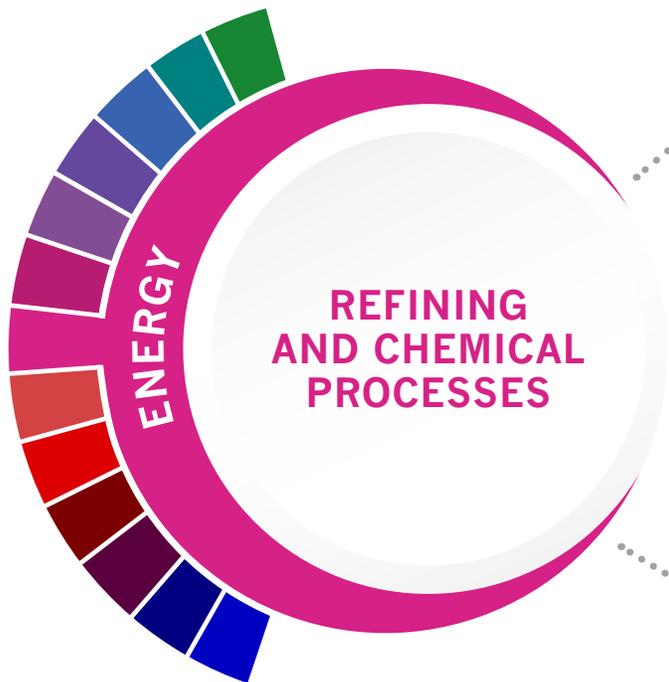


The Energy Career Cluster® prepares individuals for careers in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

Successful completion of the Oil and Gas Exploration and Production program of study will fulfill requirements of the Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Foundations of Energy

### LEVEL 2

Introduction to Process Technology  
Introduction to Instrumentation and Electrical (TBD)

### LEVEL 3

Petrochemical Safety, Health, and Environment  
Advanced Instrumentation and Electrical (TBD)

### LEVEL 4

Project-Based Research  
Applied Mathematics for Technical Professionals  
Practicum in Energy (TBD)

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
MSSC Certified Production Technician (CPT)	Process Technology Certificate Level II	Process Technology	Business Administration and Management, General	
	Petroleum Energy Technology Certificate	Process Operating Technology	Business/ Commerce, General	
	Qualification of Ultrasonic Testing Examiners (Sizing)	Logistics, Material, and Supply Chain Management	Industrial Engineering	
	Certified Plant Supervisor	Petroleum Technology/ Technician	Petroleum Engineering	

\*Includes Level I and Level II Certificates

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Gas Plant Operators	\$62, 650	312	9%
Petroleum Pump System Operators, Refinery Operators, and Gaugers	\$71,448	1,181	9%
Power Plant Operators	\$71, 635	309	9%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Tour a power plant or  
refinery

#### Work-Based Learning Activities:

Participate in summer  
conferences.

The Refining and Chemical Processes program of study helps students discover how to monitor, adjust, and control different equipment housed in petrochemical plants and refineries. It introduces students to the computer technology and instrumentation used to operate a variety of equipment systems and industrial processes, helping students build the skills needed to operate these systems.



The Energy Career Cluster® prepares individuals for careers in the designing, planning, maintaining, generating, transmission, and distribution of traditional and alternative energy.

Successful completion of the Refining and Chemical Processes program of study will fulfill requirements of the Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Lifetime Nutrition and Wellness  
Principles of Exercise Science and Wellness (TBD)

### LEVEL 2

Kinesiology I (TBD)

### LEVEL 3

Anatomy and Physiology  
Kinesiology II (TBD)

### LEVEL 4

Practicum in Entrepreneurship (TBD)  
Project Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Personal Trainer	Physical Therapist Assistant	Kinesiology and Exercise Science		Exercise Physiology
	Physical Therapy Aides	Therapeutic Recreation/ Recreational Therapy		
	Dietetic Technician	Athletic Training/ Trainer		
			Dietitians and Nutritionists	Physical Therapist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Athletic Trainers	\$53,450	215	22%
Exercise Physiologists	\$41,662	33	33%
Coaches and Scouts	\$40,010	2,133	23%
Dietitians and Nutritionists	\$57,762	428	24%
Recreational Therapists	\$45,906	74	24%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Health Occupation Students of America (HOSA)

#### Work Based Learning Activities:

Volunteer at a hospital or rehabilitation center; manage a school sports team

The Exercise Science and Wellness program of study introduces students to the fields that assist patients with maintaining physical, mental, and emotional health. Students will research diet and exercise needed to maintain a healthy, balanced lifestyle and learn about and practice techniques to help patients recover from injury, illness, or disease.

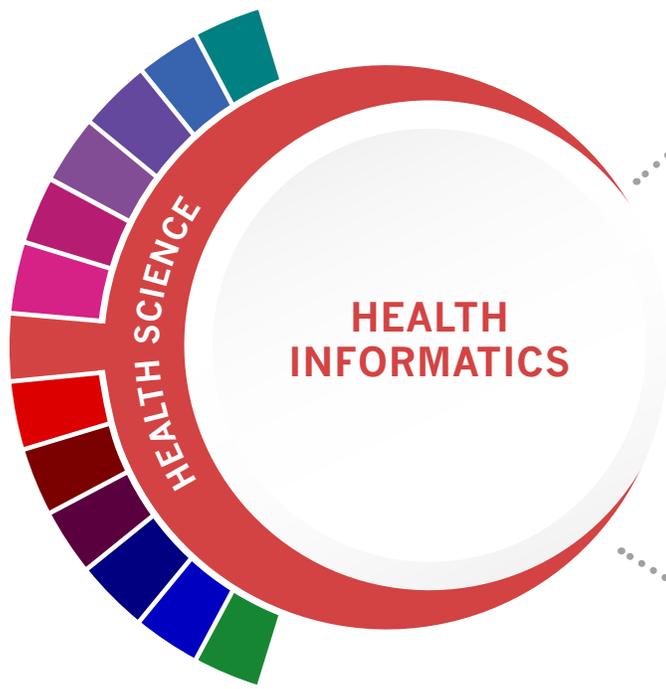


The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Exercise Science and Wellness program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Health Science  
Medical Terminology  
Principles of Health Informatics (TBD)

### LEVEL 2

Business Information Management I/Lab  
Medical Intervention Evaluation and Research (TBD)

### LEVEL 3

Health Informatics  
Healthcare Information Systems and Management (TBD)

### LEVEL 4

Mathematics for Medical Professionals  
World Health Research  
Project-Based Research

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Coding Associate	Certified Professional in Informatics	Health Information/ Medical Records Technology/ Technician	Medical and Health Service Managers	
Medical Coding and Billing Specialist	Medical Transcriptionist			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Records and Health Information Technicians	\$35,922	1,588	24%
Medical and Health Service Managers	\$93,995	2,562	29%
Billing and Posting Clerks	\$35,485	5,775	25%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Health Occupations Students of America (HOSA)

### Work Based Learning Activities:

Volunteer at a community wellness center, hospital, assisted living center, or nursing home

The Health Informatics program of study focuses on exposing students to the management and use of patient information in the healthcare field. Students may learn about and research recent modifications of computerized healthcare and the process of creating and maintaining hospital and patient records in accordance with regulatory requirements of the healthcare system. Students may also practice writing and interpreting medical reports.



The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Health Informatics program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Health Science  
Principles of Diagnostic Healthcare (TBD)  
Introduction to Imaging Technology (TBD)

### LEVEL 2

Medical Terminology  
Imaging Technology I (TBD)

### LEVEL 3

Health Science Theory  
Medical Microbiology  
Imaging Technology II (TBD)

### LEVEL 4

Anatomy and Physiology  
Pathophysiology  
Practicum in Health Science

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE S DEGREE	BACHELOR S DEGREE	MASTER S/ DOCTORAL PROFESSIONAL DEGREE
Limited Licensed Radiology Technologist	Medical Sonographer	Nuclear Medical Technology/ Technologist		Radiologist
EKG/ ECG Technician	Radiologic Technologist	Magnetic Resonance Imaging (MRI) Technology/ Technician	Medical Radiologic Technology/ Science Radiation Therapist	Radiologic Technology/ Science - Radiographer
Medical Laboratory Technician				
Phlebotomy Technician				

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Diagnostic Medical Sonographers	\$69,909	495	35%
Phlebotomists	\$30,597	1,442	36%
Nuclear Medicine Technologists	\$75,962	91	13%
Radiologic Technologists	\$55,494	1,196	19%
Magnetic Resonance Imaging Technologists	\$68,661	217	21%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Health Occupation  
Students of America  
(HOSA)

#### Work Based Learning Activities:

Clinical rotations at a  
community wellness  
center, hospital, assisted  
living, nursing home

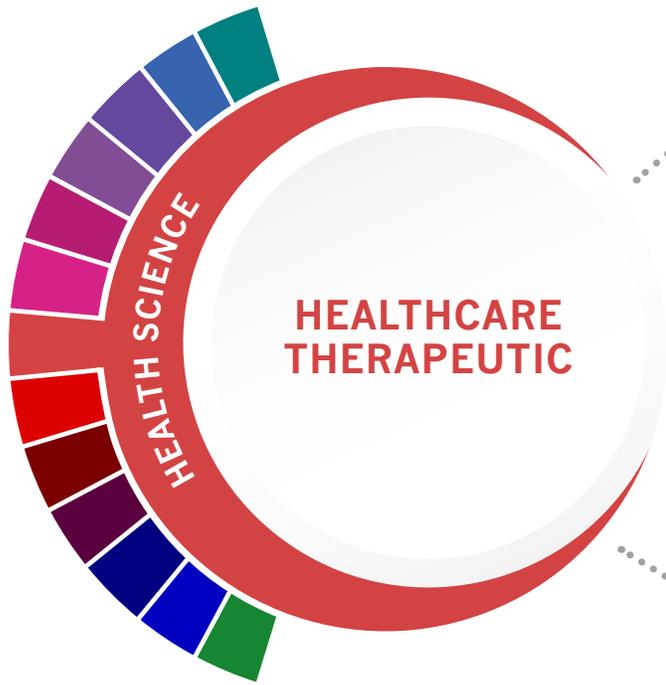
The Healthcare Diagnostics program of study introduces students to occupations and educational opportunities related to performing complex medical laboratory tests for the diagnosis, treatment, and prevention of disease. This program of study may also include exploration into the opportunities associated with blood laboratories as well as radiologic technology, and ultrasonic technology.



The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Healthcare Diagnostics program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Health Science  
Principles of Therapeutic Healthcare (TBD)  
Introduction to Pharmacy Science (TBD)  
Introduction to Dental Science (TBD)

### LEVEL 2

Medical Terminology  
Dental Anatomy and Physiology (TBD)  
Pharmacy I (TBD)

### LEVEL 3

Anatomy and Physiology  
Health Science Theory  
Medical Microbiology  
Pharmacy II (TBD)  
Medical Assistant (TBD)  
Dental Equipment and Procedures (TBD)

### LEVEL 4

Pathophysiology  
Pharmacology  
Practicum in Health Science

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Registered Dental Assistant	Dental Assistant	Dental Hygienist		Dentist
Certified Patient Care Technician	Surgical Technologist			Physician Assistant
Certified Nurse Aide/Assistant	Medical Assistant	Medical/ Clinical Assistant		Family and General Practitioners
Pharmacy Technician	Pharmacy Aides			Pharmacist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical Assistants	\$29,598	8,862	30%
Surgical Technologists	\$45,032	1,150	20%
Dental Hygienists	\$73,507	1,353	38%
Physicians and Surgeons	\$213,071	1,151	30%
Dental Assistants	\$34,840	4,422	31%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

SkillsUSA  
Health Occupation  
Students of America  
(HOSA)

### Work Based Learning Activities:

Volunteer at a community wellness center, hospital, assisted living, or nursing home.

The Healthcare Therapeutic program of study introduces students to occupations and educational opportunities related to diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study also includes an introduction to the opportunities associated with providing treatment and counsel to patients as well as rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.

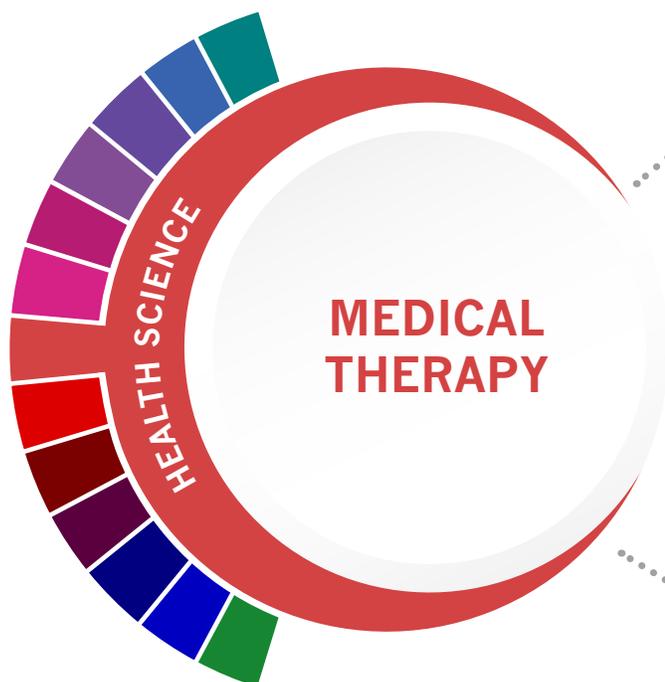


The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Healthcare Therapeutic program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Health Science  
Introduction to Speech Pathology and Audiology  
Principles of Allied Health (TBD)

### LEVEL 2

Medical Terminology  
Speech and Language Development  
Allied Health Therapeutic Services (TBD)

### LEVEL 3

Speech Communication Disorder  
Health Science Theory  
Physical Therapy I (TBD)  
Occupational Therapy I (TBD)  
Radiation Therapy I (TBD)  
Respiratory Therapy I (TBD)

### LEVEL 4

Practicum in Health Science  
Occupational Therapy II (TBD)  
Physical Therapy II (TBD)  
Radiation Therapy II (TBD)  
Respiratory Therapy II (TBD)

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certification in Orthopedic Manual Therapy	Certified Respiratory Therapist	Occupational Therapy Assistant	Respiratory Therapists	Occupational Therapists
Limited Licensed Radiology Technologist	Certified Physical Therapy Assistant	Radiation Therapists		Speech Language Pathologist
		Respiratory Therapists		Physical Therapists
		Physical Therapy Assistant		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Speech Language Pathologists	\$73,070	1,068	25%
Respiratory Therapists	\$57,429	17,493	20%
Occupational Therapists	\$92,227	84	34%
Physical Therapy Assistants	\$70,200	1,268	44%
Radiation Therapists	\$70,658	101	23%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Health Occupation Students of America (HOSA)

#### Work Based Learning Activities:

Lab internship  
Job shadow  
Clinical rotations

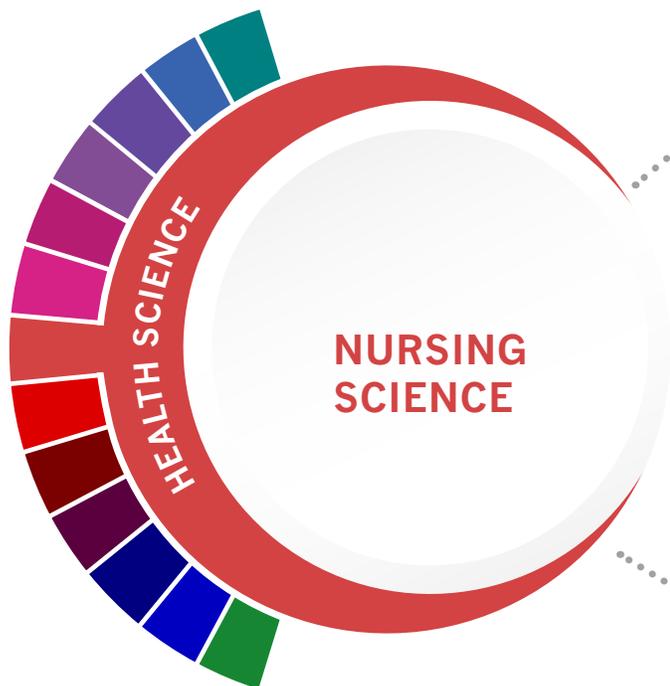
The Medical Therapist program of study focuses on the study of biology and medicine in order to introduce students to the knowledge and skills necessary to be successful in the healthcare field in occupations such as, Respiratory, Occupational, Physical, or Speech Therapist. Students may also practice patient care and communication.



The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Medical Therapist program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Health Science  
Principles of Nursing (TBD)

### LEVEL 2

Medical Terminology  
Science of Nursing (TBD)

### LEVEL 3

Medical Microbiology  
Anatomy and Physiology  
Clinical Ethics (TBD)  
Leadership and Management in Nursing (TBD)

### LEVEL 4

Pathophysiology  
Pharmacology  
Practicum in Nursing (TBD)

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Medical Assistant	Licensed Vocational Nurse	Registered Nursing/ Registered Nurse	Informatics Nurse Specialists	Nurse Practitioner
Certified Nurse Aide/Assistant				Nursing Administration
Certified Patient Care Technician				Nurse Anesthetist
Additional industry based certification information is available from the TEA CTE website.				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Licensed Vocational Nurses	\$45,178	7,186	21%
Registered Nurses	\$68,682	17,493	26%
Nurse Practitioners	\$107,827	977	50%
Nurse Anesthetists	\$154,856	357	23%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Health Occupation Students of America (HOSA)

### Work Based Learning Activities:

Volunteer at a community wellness center, hospital, assisted living center, or nursing home.

The Nursing Program of Study introduces students to knowledge and skills related to patient care. CTE concentrators may learn about or practice caring for patients, routine procedures such as monitoring vital signs, development and implementation of care plans, maintenance of medical records, and disease or pain management. Students may focus on the healthcare system and research system designs and make recommended modifications.



The Health Science Career Cluster® focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. To pursue a career in the health science industry, students should learn to reason, think critically, make decisions, solve problems, communicate effectively, and work well with others.

Successful completion of the Nursing program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Introduction to Culinary Arts  
Principles of Hospitality and Tourism

### LEVEL 2

Culinary Arts  
Foundations of Restaurant Management (TBD)

### LEVEL 3

Advanced Culinary Arts

### LEVEL 4

Food Science  
Practicum in Culinary Arts  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Certified Fundamentals Cook	Certified Chef	Hotel and Restaurant Management		
Certified Fundamentals Pastry Cook	Foodservice Management Professional	Restaurant Culinary and Catering Management	Food Service Systems Administration/Management	
ServSafe Manager	Comprehensive Food Safety	Hospitality Administration/Management, General		
ManageFirst Professional	Certified Food and Beverage Executive	Culinary Arts/ Chef Training	Culinary Science and Food Service Management	Business Administration Management, General

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Food Service Managers	\$55,619	1,561	28%
Chef and Head Cooks	\$43,285	1,366	25%
Food Science Technicians	\$34,382	236	11%
Food and Beverage Managers	\$55,619	1,561	28%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**      **Work Based Learning Activities:**

Family, Career, Community Leaders of America (FCCLA), SkillsUSA, American Culinary Federation, Texas Restaurant Association

Plan a catering event or work for a catering company; participate in a cooking course; work in a restaurant; cook at home

The Culinary Arts program of study introduces students to occupations and educational opportunities related to the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study also explores opportunities involved in directing and participating in the preparation and cooking of food.



The Hospitality and Tourism Career Cluster® focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students acquire knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success.

Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study - September 2019





## COURSES

- LEVEL 1**  
Principles of Hospitality and Tourism

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- LEVEL 2**  
Hotel Management  
Travel and Tourism Management

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- LEVEL 3**  
Hospitality Services  
Introduction to Event and Meeting Planning (TBD)

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- LEVEL 4**  
Practicum in Hospitality Services  
Practicum in Event and Meeting Planning (TBD)  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Certified Hospitality & Tourism Management Professional	Certified Hospitality Supervisor	Hotel/Motel Administration/Management	Hospitality Administration/Management, General	
Certified Associate in Project Management	Certified Hotel Administrator	Business Administration and Management, General		
Entrepreneurship and Small Business	Certification in Hotel Industry Analytics	Tourism and Travel Services Management	Hotel and Restaurant Management	Hospitality Administration
	Certified Guest Service Professional	Business Administration and Management	Marketing/ Management, General	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
General and Operations Managers	\$107,640	18,679	20%
Lodging Managers	\$48,381	396	19%
Administrative Services Managers	\$96,138	2,277	21%
Meeting, Convention, and Event Planners	\$47,446	1,083	21%

**WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES**

**Exploration Activities:** Family, Career, and Community Leaders of America (FCCLA), American Hotel and Lodging Association

**Work Based Learning Activities:** Intern at a resort or lodging property; work at a hotel, summer camp or theme park;

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

The Lodging and Resort Management program of study introduces students to occupations and educational opportunities related to the logistical and operational management of lodging and resorts. This program of study also explores opportunities related to human resources, financial analysis, and marketing.



The Hospitality and Tourism Career Cluster® focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success.

Successful completion of the Lodging and Resort Management program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



**LEVEL 1**

Principles of Hospitality and Tourism

**LEVEL 2**

Travel and Tourism Management  
Entrepreneurship  
Sports and Entertainment Marketing

**LEVEL 3**

Global Business  
Tourism Marketing Concepts and Applications (TBD)

**LEVEL 4**

Practicum in Hospitality Services  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Certified Hospitality and Tourism Management Professional	Travel and Tourism Professional	Tourism Management		
Entrepreneurship and Small Business	Certified Tourism Executive	Business Administration and Management, General		
Certified Associate in Project Management	Communication Management Professional	Tourism and Travel Services Management	Tourism Management	Recreation and Resources Development
	Certified Marketing Analyst	Tourism and Travel Services Marketing	Sport Event and Tourism Management	Recreation, Park, and Tourism Sciences

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Advertising and Promotions Managers	\$94,515	164	20%
Fundraisers	\$54,850	875	21%
Market Research Analysts and Marketing Specialists	\$70,346	4,664	40%
Marketing Managers	\$144,269	1,297	32%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Family, Career, and Community Leaders of America (FCCLA), SkillsUSA, Texas Travel Industry Association

### Work Based Learning Activities:

Work at a local tourist attraction, theme park, or summer camp; volunteer at a local community event (fair or rodeo)

The Travel, Tourism, and Attractions program of study introduces students to occupations and educational opportunities related to the marketing or sales of travel and tourism services. This program of study allows students to learn how to plan, direct, and coordinate marketing or business policies and programs, including identifying potential customers and determining demand and promotional strategies for products and services.



The Hospitality and Tourism Career Cluster® focuses on the management, marketing, and operations of restaurants and other food/beverage services, lodging, attractions, recreation events, and travel-related services. Students learn knowledge and skills focusing on communication, time management, and customer service that meet industry standards. Students will explore the history of the hospitality and tourism industry and examine characteristics needed for success.

Successful completion of the Travel, Tourism, and Attractions program of study will fulfill requirements of the Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Human Services  
Professional Communications  
Interpersonal Studies  
Dollars and Sense  
Principles of Community Services (TBD)

### LEVEL 2

Lifetime Nutrition and Wellness  
Human Growth and Development  
Child Development  
Social and Community Services (TBD)

### LEVEL 3

Counseling and Mental Health  
Family and Community Services

### LEVEL 4

Practicum in Human Services  
Practicum in Entrepreneurship (TBD)  
Project-Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Community Health Worker	Human Development and Family Studies	Human Development and Family Studies		
Certified Associate in Project Management	Community Health Services/Liaison/Counseling	Human Services/Sciences, General		Marriage and Family Therapy/Counseling
	Distance Credentialed Counselor	Family and Consumer Sciences		Human Services/Sciences
	Educator Certification in Family and Consumer Sciences	Community Health Services	Child and Family Services	Family Studies

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Child, Family, and School Social Workers	\$41,350	2,221	17%
Social and Community Services Managers	\$65,146	608	33%
Marriage and Family Therapists	\$42,266	217	35%
Social and Human Service Assistants	\$32,448	2,822	25%
Mental Health and Substance Abuse and Behavioral Disorder Counselors	\$42,120	576	39%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
American Association of Family and Consumer Sciences, Family, Career and Community Leaders of America

**Work Based Learning Activities:**  
Volunteer at a community center; intern for a community non-profit organization

The Family and Community Services program of study introduces students to knowledge and skills related to social services, including child and human development and consumer sciences. CTE concentrators may learn about or practice managing social and community services or teaching family and consumer sciences. Students may follow career paths in social work or therapy for children, families, or school communities.

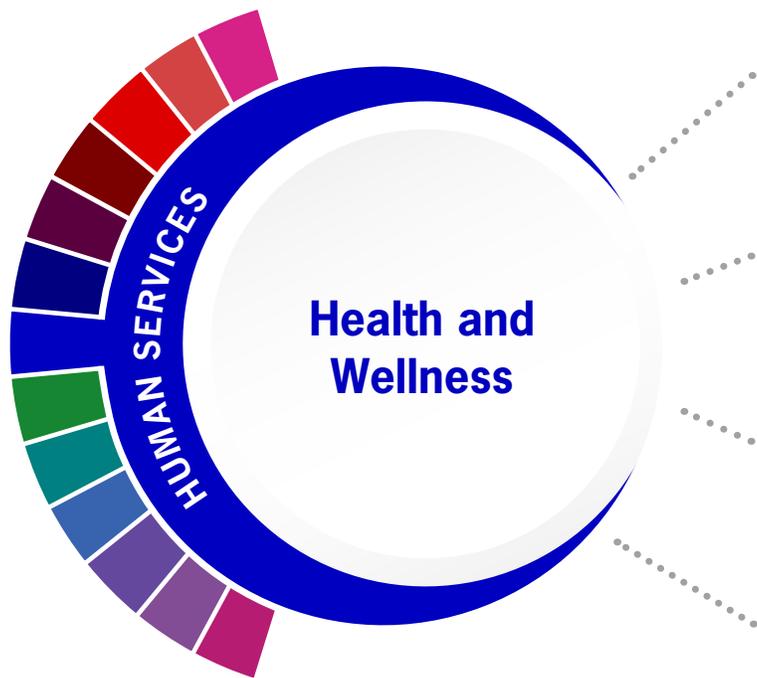


The Human Services Career Cluster® focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Successful completion of the Family and Community Services program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Human Services

### LEVEL 2

Lifetime Nutrition and Wellness  
Human Growth and Development  
Interpersonal Studies

### LEVEL 3

Applied Nutrition and Dietetics (TBD)

### LEVEL 4

Practicum in Human Services  
Practicum in Entrepreneurship (TBD)  
Advanced Nutrition and Dietetics (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Community Health Worker	Registered Dietitian	Nutrition Sciences		
Entrepreneurship and Small Business	Counselor, Professional	Community Health Services/Liaison/Counseling	Mental Health Counseling/Counselor	Community Health and Preventative Medicine
	Registered Dietitian Nutritionist	Health and Wellness, General	Nutrition	
	Social Worker	Public Health	Human Nutrition and Foods	Exercise and Sports Nutrition

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Community Health Workers	\$38,064	592	25%
Substance Abuse and Behavior Disorder Counselors	\$37,024	614	35%
Mental Health Counselors	\$41,558	812	38%
Health Care Social Workers	\$55,515	1,583	35%
Rehabilitation Counselors	\$43,930	586	23%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
American Association of Family and Consumer Sciences; Family, Career and Community Leaders of America

**Work Based Learning Activities:**  
Job shadow a dietitian or nutritionist; work part-time at a counseling services center, health department or hospital

The Health and Wellness program of study introduces students to knowledge and skills related to promoting physical, emotional, social, and mental health and wellness. Students who choose this program of study may learn how to assist patients in planning for their health and wellness, respond to crises, and advise, provide education or counseling, or make referrals. CTE concentrators may also focus on addressing barriers to access health and wellness services.



The Human Services Career Cluster® focuses on preparing individuals for employment in career pathways that relate to families and human needs such as counseling and mental health services, family and community services, personal care services, and consumer services.

Successful completion of the Health and Wellness program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Information Technology  
Geographic Information Systems

### LEVEL 2

Computer Maintenance/Lab  
Raster Based GIS

### LEVEL 3

Computer Technician Practicum  
Spatial Technology and Remote Sensing  
IT Troubleshooting (TBD)

### LEVEL 4

Computer Technician Practicum (2nd time)  
Practicum of Information Technology  
Practicum in Entrepreneurship (TBD)  
Project-Based Research  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Microsoft Technology Associate Windows Operating System Fundamentals	IBM Certified Specialist - InfoSphere Optim for Distributed Systems Fundamentals	Computer and Information Sciences, General		
ERSI ArcGIS Desktop Entry	IBM Certified Database Associate - DB2 11 Fundamentals for z/OS	Computer and Information Systems Security/Information Assurance	Computer Systems Analysis/ Analyst	
CompTIA A+	HP ASE - ProLiant Server Solutions Integrator V2	Information Technology	Computer Engineering, General	
CompTIA IT Fundamentals +	Oracle Linux 6 Advanced System Administration	Computer Systems Networking and Telecommunications	Information Technology	

Additional industry based certification information is available from the TEA CTE website

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Database Administrator	\$83,075	1,063	19%
Computer Hardware Engineer	\$111,738	343	24%
Computer System Analyst and Support	\$87,568	5,937	29%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Join TSA  
Job shadow a database administrator or computer hardware engineer

#### Worked Based Learning Activities:

Obtain a Certification

The Information Technology Support and Services program of study explores the occupations and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study may also include analyzing user requirements and problems to automate or improve existing systems and review computer system capabilities. This program of study may also include exploration into the research, design, or testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.



The Information Technology (IT) Career Cluster® focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of a Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Computer Science I  
Principles of Information Technology  
Principles of Cloud Computing (TBD)

### LEVEL 2

Internetworking Technologies I  
Computer Maintenance/Lab  
AP Computer Science Principles  
Cloud Networking (TBD)

### LEVEL 3

Internetworking Technologies II  
Networking/Lab

### LEVEL 4

Practicum in Information Technology  
Practicum in Entrepreneurship (TBD)  
Project Based Research  
Career Preparation I

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Oracle Certified Associate Java SE 8	AEM 6 Business Practitioner	Computer and Information Sciences, General			Computer Network Architects	\$111,633	1,082	23%
Oracle Certified Database Associate	Intelligence Planner Certification Program	Computer Systems Networking and Telecommunications		Information Technology	Computer Systems Analysts	\$87,568	5,937	29%
Cisco Certified Entry Networking Technician (CCENT)	Cisco Certified Entry Networking Technician	Information Technology	Computer and Information Systems Security/Information Assurance		Computer Network Support Specialists	\$68,037	1,824	19%
Associate of (ISC)2	Microsoft Networking Fundamentals	Network and System Administration/Adm inistrator	Computer Engineering, General					
*Includes Level 1 and Level II Certificates					<b>WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES</b>			
For more information on postsecondary options for this program of study, visit TXCTE.org.					<b>Exploration Activities:</b>	<b>Work Based Learning Activities:</b>		
					Join TSA Job shadow a computer network architect or support specialist	Earn an industry-based certification.		

The Networking Systems program of study explores the occupations and educational opportunities associated with designing and implementing computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. This program of study may also include exploration into analyzing science, engineering, and other data processing problems to implement and improve computer systems.



The Information Technology (IT) Career Cluster® focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Successful completion of the Networking Systems program of study will fulfill requirements of a Business and Industry Endorsement. Approved Statewide Program of Study - September 2019



## COURSES

### LEVEL 1

Principles of Information Technology

### LEVEL 2

Computer Programming I  
Web Technologies

### LEVEL 3

Web Design  
Web Game Development

### LEVEL 4

Practicum in Information Technology  
Practicum in Entrepreneurship (TBD)  
Project Based Research  
Career Preparation

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	AEM 6 Developer	Computer Programming/Programmer, General	Web/Multimedia Management and Webmaster	Computational Science
WD Certified Web Design Certification	Certified Webmaster Professional	Computer Science		
Microsoft Technology Associate Introduction to Programming Certifications	Adobe Campaign Developer	Web Page, Digital/Multimedia and Information Resources Design		Information Science/ Studies
App Development with Swift Certification Level 1	IBM Certified Solution Developer - OpenSocial	Computer Systems Networking and Telecommunications		

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Computer Network Architects	\$111,633	1,079	39%
Web Administrators, Computer Occupations	\$85,197	1,616	20%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Join TSA  
Participate in a coding or computer programming club  
Create a web page

#### Work Based Learning Activities:

Get an Oracle or CISCO Certification

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

The Web Development program of study explores the occupations and educational opportunities associated with designing, creating, and modifying websites. This program of study may also explore integrating websites with other computer applications, and converting written, graphic, audio, and video components to compatible web formats by using software designed to facilitate the creation of web and multimedia content.



The Information Technology (IT) Career Cluster® focuses on building linkages in IT occupations for entry level, technical, and professional careers related to the design, development, support, and management of hardware, software, multimedia, and systems integration services.

Successful completion of the Web Development program of study will fulfill requirements of a Business and Industry Endorsement. Approved Statewide Program of Study September 2019



## COURSES



**LEVEL 1**

Principles of Law, Public Safety, Corrections, and Security

**LEVEL 2**

Disaster Response

**LEVEL 3**

Firefighter I  
Emergency Medical Technician - Basic  
Anatomy and Physiology  
National Security  
Counseling and Mental Health

**LEVEL 4**

Firefighter II  
Practicum in Law, Public Safety, Corrections, and Security  
Project-Based Research

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Emergency Medical Technician - Basic		Emergency Medical Technology/Technician (EMT Paramedic)		
Emergency Telecommunicator	Fire Protection Personnel/Firefighter	Fire Prevention and Safety Technology/Technician	Natural Resources Law Enforcement and Protective Services	
Basic Structure Fire Protection Certification	Fire Protection System Contractor	Fire Science/Fire-fighting		
	Fire Inspector			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Firefighters	\$50,149	2,309	13%
Fire Inspectors and Investigators	\$54,787	161	14%
Emergency Medical Technicians	\$34,091	1,880	31%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Attend local emergency awareness events; Texas Public Service Association

#### Work Based Learning Activities:

Volunteer at a hospital or a fire station

The Emergency Services program of study focuses on training students to respond to emergency situations, namely medical emergencies and fire-based emergencies. Students may learn how to prevent emergencies, respond appropriately and in accordance with rules and regulations during crises, and investigate and delineate the source of the emergency.



The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

Successful completion of the Emergency Services program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Government and Public Administration

### LEVEL 2

Political Science I  
Federal Law Enforcement and Protective Services

### LEVEL 3

Planning and Governance  
Political Science II  
Dimensions of Diplomacy

### LEVEL 4

Public Management and Administration  
Revenue, Taxation, and Regulation  
Practicum in Local, State, and Federal Government

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
	Accountant, Certified Public	Accounting and Business/Management	Accounting and Finance	Accounting
	Tax Professional/ Appraiser/ Assessor- Collector	Financial Mathematics		Taxation
	Real Estate Broker/Sales Agent	Finance, General		
	Real Estate Inspector	Real Estate		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Tax Examiners and Collectors, Revenue Agents	\$47,445	307	9%
Financial Examiners	\$76,731	412	27%
Appraisers and Assessors of Real Estate	\$54,496	529	21%
Financial Analysts	\$79,414	2,798	24%
Financial Specialists	\$67,995	997	17%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

### Exploration Activities:

Attend local council and board meetings; Texas Public Service Association

### Work Based Learning Activities:

Intern with a legislator or city official; develop and present a solution for an identified problem

The Government and Public Administration program of study explores the occupations and educational opportunities associated with examining, evaluating, and investigating conformity with laws and regulations. This program of study may also explore the opportunities related to developing comprehensive plans and programs for use of land and physical facilities of jurisdictions, such as towns, cities, counties, and metropolitan areas.



The Law and Public Service Career Cluster focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

Successful completion of the Government and Public Administration program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Law, Public Safety, Corrections, and Security

### LEVEL 2

Law Enforcement I  
Federal Law Enforcement and Protective Services  
Criminal Investigations

### LEVEL 3

Law Enforcement II  
Correctional Services  
Forensic Psychology

### LEVEL 4

Counseling and Mental Health  
Forensic Science  
Practicum in Law, Public Safety Corrections, and Security

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Non-Commissioned Security Officer Level II	Law Enforcement Officer	Criminal Justice/Safety Studies/Law Enforcement Administration		
	Private Investigator/ Security Guard	Criminal Justice/ Police Science		
	Code Enforcement Officer	Corrections	Juvenile Corrections	
	Certified Law Enforcement Planner	Criminalistics and Criminal Science	Cyber/ Computer Forensics and Counterterrorism	Natural Resources Law Enforcement and Protective Services

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Police and Sheriff's Patrol Officers	\$60,112	5,241	13%
Probation Officers and Correctional Treatment Officers	\$44,054	793	9%
Correctional Officers and Jailers	\$40,186	4,683	9%
Immigration and Customs Inspectors	\$78,104	1,236	9%
First-Line Supervisors of Police and Detectives	\$91,312	253	25%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Texas Public Service Association;  
criminal justice clubs

**Work Based Learning Activities:**  
Attend court hearings and other legal procedures.

The Law Enforcement program of study teaches students about the development of, adherence to, and protection of various branches of law. Students may learn how to appropriately and legally respond to breaches in the law according to statutory rules and regulations as well as investigate how and why the breaches occurred.



The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

Successful completion of the Law Enforcement, Investigations, Security, and Corrections program of study will fulfill requirements of the Public Service Endorsement. Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Law, Public Safety, Corrections, and Security

### LEVEL 2

Court Systems and Practices  
Business Law  
Political Science I

### LEVEL 3

Legal and Research Writing  
Political Science II  
Advanced Court Systems (TBD)

### LEVEL 4

Practicum in Law, Public Safety, Corrections, and Security  
Project-Based Research  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Attorney	Legal Assistant/Paralegal	Legal Assistant/Paralegal	Law
	Certified Paralegal			Intellectual Property Law
	Board Certification in Types of Law			Advanced Legal Research/ Studies, General
	Certified Legal Video Specialist			International Law and Legal Studies

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Lawyers	\$126,131	2,801	19%
Paralegal and Legal Assistants	\$50,544	2,837	19%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Attend court hearings and other legal procedures;  
Texas Public Service Association

**Work Based Learning Activities:**  
Intern with a local attorney;  
script and conduct a mock trial

The Legal Studies program of study introduces students to the occupations and educational opportunities related to representing clients in criminal and civil litigation and other legal proceedings, as well as assisting lawyers and preparing legal documents. This program of study explores possible specializations in a single area of law.



The Law and Public Service Career Cluster® focuses on planning, managing, and providing legal services, public safety, protective services, and homeland security, including professional and technical support services. Students will examine the roles and responsibilities of police, courts, corrections, private security, and protective agencies of fire and emergency services.

Successful completion of the Legal Services program of study will fulfill requirements of the Public Service Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

- LEVEL 1**  
Principles of Manufacturing  
Occupational Safety and Environmental Technology I  
Principles of Applied Engineering

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- LEVEL 2**  
Engineering Design and Presentation I  
Occupational Safety and Environmental Technology II  
Robotics I  
Manufacturing Engineering Technology I  
Programmable Logic Controller I (TBD)

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- LEVEL 3**  
Manufacturing Engineering Technology II  
Robotics II  
Programmable Logic Controller II (TBD)

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- LEVEL 4**  
Practicum in Manufacturing  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
FANUC Robot Operator 1	Engineer, Professional	Electro-mechanical Engineering/Technology	Electrical Engineering	
Mastercam Associate Level Certification	PMMI Mechatronics: Programmable Logic Controllers 1	Robotics Technology/Technician	Engineering, General	
NCCER Industrial Maintenance Mechanic	Certified Quality Technician	Instrumentation Technology/Technician	Industrial Engineering	
NIMS Industrial Technology Maintenance - Maintenance Operations	Plant Maintenance Technologist	Industrial Mechanics and Maintenance Technology	Mechanical Engineering	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Electro-Mechanical Assemblers	\$30,160	951	9%
Electro-Mechanical Technicians	\$56,555	127	9%
Industrial Machinery Mechanics	\$49,816	3,788	27%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Participate in SkillsUSA and local STEM events

**Work Based Learning Activities:**  
Apprenticeship at a local business or industry  
American Welding Society

The Advanced Manufacturing and Machinery Mechanics program of study focuses on the assembly, operation, maintenance, and repair of electromechanical equipment or devices. Students may work in a variety of mechanical fields, gaining knowledge and experience in robotics, refinery and pipeline systems, deep ocean exploration, or hazardous waste removal. CTE concentrators may work in a variety of fields of engineering.



The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Successful completion of the Advanced Manufacturing and Machinery Mechanics program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Blueprint Reading for Manufacturing Applications  
Principles of Manufacturing  
Occupational Safety and Environmental Technology I  
Principles of Applied Engineering

### LEVEL 2

Metal Fabrication and Machining I  
Diversified Manufacturing I  
Occupational Safety and Environmental Technology II

### LEVEL 3

Precision Metal Manufacturing I  
Metal Fabrication and Machining II  
Diversified Manufacturing II  
Occupational Safety and Environmental Technology III  
Computer Integrated Manufacturing (PLTW)

### LEVEL 4

Precision in Metal Manufacturing II/Lab  
Practicum in Manufacturing  
Practicum in Entrepreneurship (TBD)

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
MSSC Certified Production Technician	Certified Welder or Welder Inspector	Welding Technology/Welder	Welding Engineering Technology/Technician	
ISCET Associate-Level Certified Electronics Technician	Machining Level 1 - CNC Milling: Programming Setup & Operations	Machine Shop Technology/Assistant	Biomedical Technology/Technician	Occupational Health and Industrial Hygiene
Mastercam Professional Level Certification	Certified Welding Engineering	Operations Management and Supervision		
NIMS Industrial Technology Maintenance - Basic Mechanical Systems	Certified Environmental, Safety, and Health Trainer	Occupational Safety and Health Technology/Technician	Environmental Health	

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Mechanical Engineering Technicians	\$57,117	453	9%
CNC Machine Operators	\$39,250	1,319	12%
Aerospace Engineering and Operations Technicians	\$60,757	114	9%
Electrical and Electronics Engineering Technicians	\$60,382	1,439	9%
Industrial Engineering Technicians	\$61,672	326	9%

## WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Participate and compete in SkillsUSA  
Job shadow a machinist

**Work Based Learning Activities:**  
Apprenticeship at a local business or industry  
American Welding Society

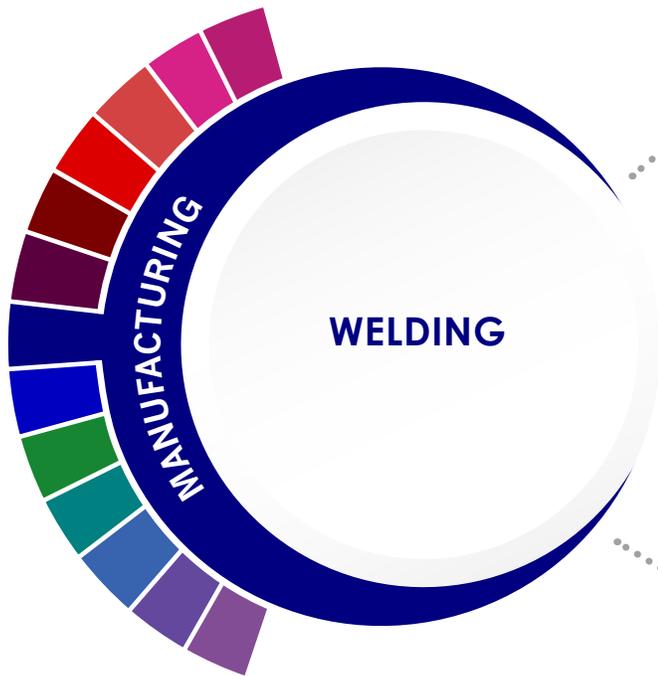
The Manufacturing Technology program of study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. Students will learn how to set up and operate a variety of machine tools to produce precision parts and instruments. Students will also learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment.



The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Successful completion of the Manufacturing Technology program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

- LEVEL 1**  
Introduction to Welding

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- LEVEL 2**  
Welding I

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- LEVEL 3**  
Welding II/Lab

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- LEVEL 4**  
Practicum in Manufacturing  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
AWS Certified Welder, D1.1, D9.1	Certified Welder or Welder Inspector	Welding Technology/Welder	Welding Engineering Technology/Technician	
ASW SENSE Level 1	Machining Level 1 - CNC Milling: Programming Setup & Operations	Machine Shop Technology/Assistant	Biomedical Technology/Technician	Occupational Health and Industrial Hygiene
API 1104 Welding Certificate	Certified Welding Engineering	Operations Management and Supervision		
NCCER Welding, Level 1	Certified Environmental, Safety, and Health Trainer	Occupational Safety and Health Technology/Technician	Environmental Health	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Welders, Cutters, Solderers, and Brazers	\$41,350	6,171	9%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Participate and compete in SkillsUSA  
Job shadow a machinist

**Work Based Learning Activities:**  
Apprenticeship at a local business or industry  
American Welding Society

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

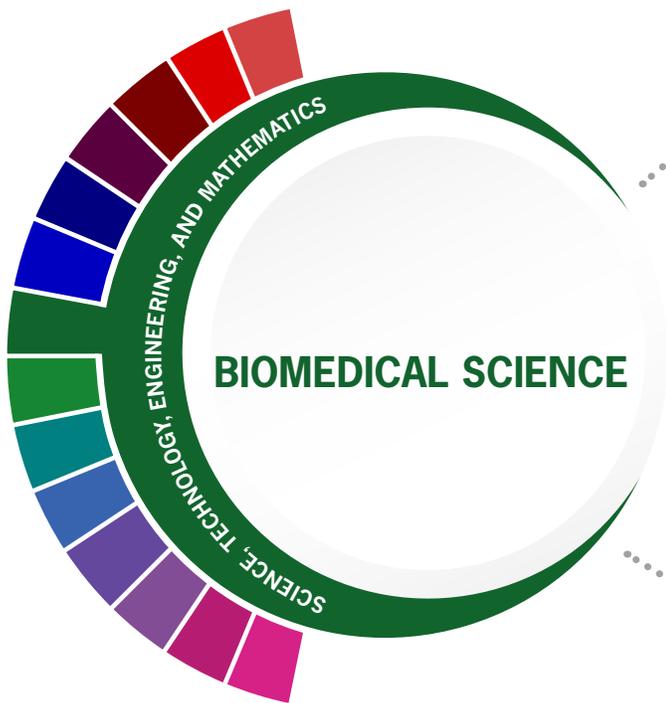
The Welding program of study focuses on the development and use of automatic and computer-controlled machines, tools, and robots that perform work on metal or plastic. Students will learn how to modify parts to make or repair machine tools or maintain individual machines, and how to use hand-welding or flame-cutting equipment.



The Manufacturing Career Cluster® focuses on planning, managing, and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Successful completion of the Manufacturing Technology program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Biosciences  
Principles of Biomedical Science (PLTW)

### LEVEL 2

Human Body Systems (PLTW)  
Biotechnology I

### LEVEL 3

Biotechnology II  
Medical Microbiology  
Medical Interventions (PLTW)

### LEVEL 4

Pathophysiology  
Biomedical Innovations (PLTW)  
Practicum in Science, Technology, Engineering,  
and Mathematics  
Scientific Research and Design

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Medical Laboratory Assistant	Medical and Clinical Laboratory Technologists	Histologic Technician	Molecular Biology	Genetic Counseling
Medical Laboratory Technician			Biomedical Engineers	Medical Scientist
		Clinical Laboratory Science/ Medical Technology/ Technologist	Clinical Laboratory Science/ Medical Technology/ Technologist	Epidemiology

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Medical and Laboratory Technicians	\$37,981	1,159	28%
Biological Technicians	\$42,931	452	17%
Forensic Science Technicians	\$48,152	171	35%
Chemical Technicians	\$49,733	672	10%
Medical and Clinical Laboratory Technologists	\$58,760	1,166	25%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Health Occupations Students of America (HOSA)

#### Work Based Learning Activities:

Lab internship or shadow a healthcare or medical professional

The Biomedical Science program of study focuses on the study of biology and medicine in order to introduce students to the knowledge and skills necessary to be successful in the healthcare field, such as researching and diagnosing diseases, pre-existing conditions, or other determinants of health. Students may also practice patient care and communication.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Biomedical Science program of study will fulfill requirements of the Public Service Endorsement or STEM Endorsement, dependent upon courses chosen.

Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Information Technology  
Fundamentals of Computer Science  
Foundations of Cybersecurity

### LEVEL 2

Internetworking Technologies I  
Computer Programming I  
Computer Science I  
AP Computer Science Principles  
Computer Maintenance/Lab

### LEVEL 3

Internetworking Technologies II  
Engineering Applications of Computer Science  
Principles  
Networking/Lab  
Digital Forensics  
AP Computer Science A

### LEVEL 4

Cybersecurity Capstone  
Practicum in Information Technology  
Practicum in STEM  
Project-Based Research

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Associate Java SE 8	GIAC Reverse Engineering Malware	System Networking, and LAN/WAN Management	Computer Systems Networking and Telecommunications	Computer Systems Analysis/Analyst
Oracle Certified Database Associate	Certified Advanced Windows Forensic Examiner	Information Technology	Computer Systems Networking and Telecommunications	Information Technology
Cisco Certified Entry Networking Technician (CCENT)	SAP Certified Technology Professional System Security Architect	Computer and Information Sciences, General		
Associate of (ISC)2	Cisco Certified Network Professional Security Certification	Computer Science		
Additional industry based certification information is available from the TEA CTE Website				
For more information on postsecondary options for this program of study, visit TXCTE.org.				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Information Security Analysts	\$91,915	814	29%
Network and Computer System Administrators	\$82,597	2,814	19%
Computer Systems Analyst	\$87,568	5,937	29%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Join TSA  
Job shadow a computer system analyst or information security analyst.

#### Work Based Learning Activities:

Obtain an industry based certification.

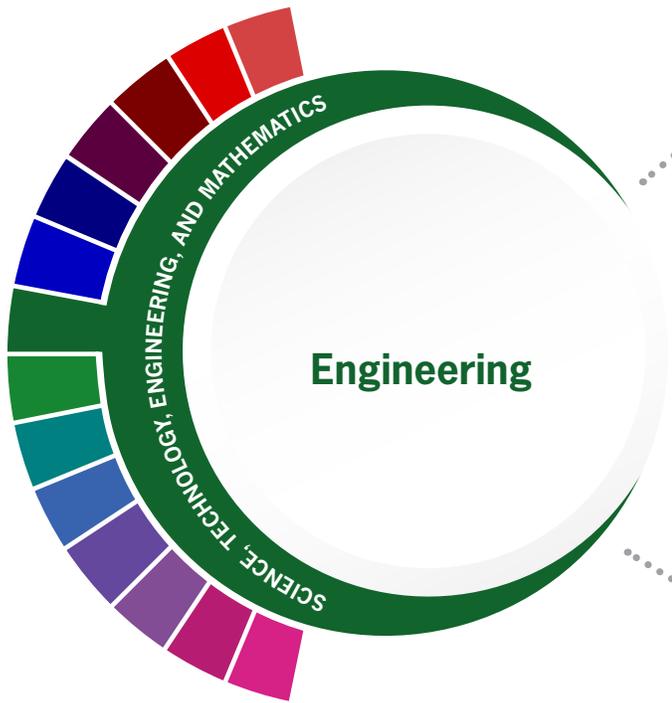
The Cybersecurity program of study includes the occupations and educational opportunities related to planning, implementing, upgrading, or monitoring security measure for the protection of computer networks and information. This program of study may also include exploration into responding to computer security breaches and virus and administering network security measures.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Cybersecurity program of study will fulfill requirements of a Business and Industry or STEM Endorsement. Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Principles of Applied Engineering  
Computer Aided Drafting for Manufacturing (TBD)  
Introduction to Engineering Design (PLTW)

### LEVEL 2

Manufacturing Engineering Technology I

### LEVEL 3

Engineering Design and Development (PLTW)  
Engineering Design and Presentation I  
Computer Integrated Manufacturing (PLTW)  
Aerospace Engineering (PLTW)  
Digital Electronics  
Civil Engineering and Architecture (PLTW)  
Engineering Science  
Environmental Sustainability (PLTW)

### LEVEL 4

Engineering Design and Problem Solving  
Engineering Design and Presentation II  
Practicum in STEM  
Scientific Research and Design

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
Autodesk Certified Professional or User (ACU) - Inventor	Engineer, Professional	Electrical and Electronics Engineering	Electrical and Electronics Engineering	Electrical and Electronics Engineering
Certified SolidWorks Associate (CSWA)	Fluid Power Systems Designer	Drafting and Design Technology/ Technician, General	CAD/CADD Drafting and/or Design Technology/ Technician	Mechanical Engineering
Certified Engineering Technician - Audio Systems	Certified Biomedical Auditor	Engineering Technology	Bioengineering and Biomedical Engineering	Bioengineering and Biomedical Engineering
	Certified Cost Estimator/ Analyst		Construction Engineering Technology/ Technician	

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Aerospace Engineers	\$110,843	481	9%
Industrial Engineers	\$97,074	1,263	10%
Mechanical Engineers	\$91,707	1,535	11%
Chemical Engineers	\$112,819	474	9%
Electrical Engineers	\$98,405	1,137	10%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

Exploration Activities:  
Participate in competitions like Skills USA

Career Preparation Activities:  
Engineering internship  
Job shadow a machinist

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

The Engineering program of study focuses on the design, development, and use of engines, machines, and structures. Students will learn how to apply science, mathematical methods, and empirical evidence to the innovation, design, construction, operation, and maintenance of different manufacturing systems.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster® focuses on planning, managing, and providing scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Engineering program of study will fulfill requirements of the Business and Industry or STEM Endorsement.  
Approved Statewide Program of Study - September 2019

## COURSES



**LEVEL 1**

Fundamentals of Computer Science

**LEVEL 2**

Computer Programming I  
AP Computer Science Principles  
Computer Science I

**LEVEL 3**

Introduction to C# Programming  
Applications  
AP Computer Science A  
Mobile App Development  
Computer Programming II  
Computer Science II

**LEVEL 4**

Computer Science III  
Practicum in Information Technology  
Practicum of A/V Production  
Practicum in STEM  
Career Preparation I

HIGH SCHOOL / INDUSTRY CERTIFICATION	CERTIFICATE / LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S / DOCTORAL PROFESSIONAL DEGREE
Oracle Certified Association JAVA SE 8 Programmer	Certified Computing Professional	Computer Programming/Programmer General	Management Information Systems, General	
Oracle Certified Database Associate	Cloud Technology Associate Certification	Computer Software Engineer		
	AEM 6 Developer	Computer Science		
	Certified Software Analyst	Information Science/Studies		
*Includes Level I and Level II Certificates				
For more information on postsecondary options for this programs of study, visit TXCTE.org				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Computer Network Architect	\$111, 633	1,454	9%
Software Developer, Systems Software	\$103, 334	2985	25%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

Join TSA  
Participate in a coding club at school.

#### Work Based Learning Activities:

Obtain an industry based certification.

The programming and Software Development program of study explores the occupations and education opportunities associated with researching, designing, developing, and testing operating systems-level software, compilers, and network distribution software for medical, industrial, military, communications, aerospace, business, scientific, and general computer applications. This program of study may also include exploration into creating, modifying, and testing the codes, forms, and script that allow computer applications to run

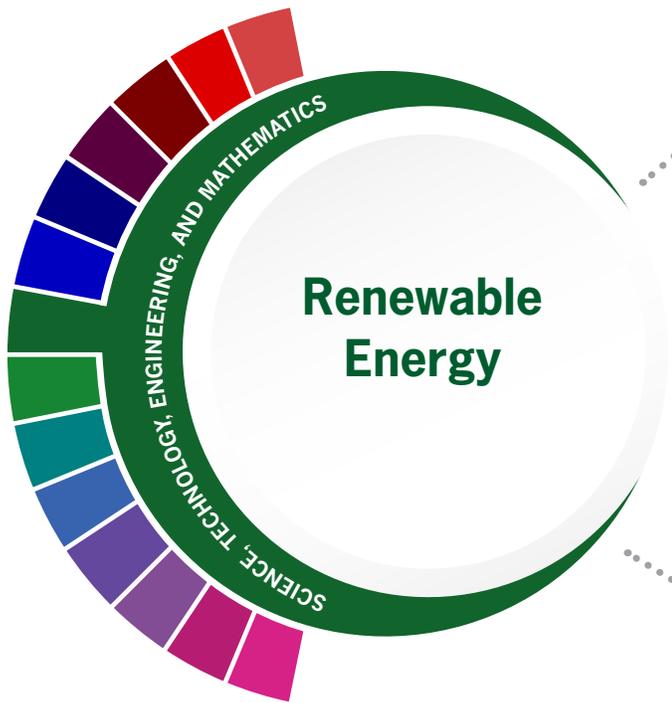


The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Programming and Software Development program of study will fulfill requirements of a Business and Industry or STEM Endorsement.

Approved Statewide Program of Study -





## COURSES

### LEVEL 1

Principles of Applied Engineering  
Foundations of Energy

### LEVEL 2

AC/DC Electronics  
Energy and Natural Resources Technology  
Introduction to Renewable Energy (TBD)

### LEVEL 3

Environmental Sustainability (PLTW)  
Solid State Electronics  
Scientific Research and Design

### LEVEL 4

Digital Electronics  
Engineering Design and Problem Solving  
Project-Based Research  
Applied Mathematics for Technical Professionals  
Practicum in STEM  
Practicum in Energy (TBD)

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
	Photovoltaic Installer-Level 1 Professional	Industrial Mechanics and Maintenance Technology	Surveying Engineering	
	Solar Photovoltaic Certification	Solar Energy Technology/	Systems Engineering	
	Small Wind Installer-Level 1	Engineering, Mechanics	Manufacturing Engineering	
		Engineering, General		
*Includes Level I and Level II Certificates				
For more information on postsecondary options for this program of study, visit TXCTE.org				

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Wind Turbine Services Technician	\$51,334	387	108%
Solar Photovoltaic Installer	\$43,957	470	81%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

#### Exploration Activities:

SkillsUSA  
Science Club

#### Work Based Learning Activities:

Research four renewable  
energy companies and  
compare them.

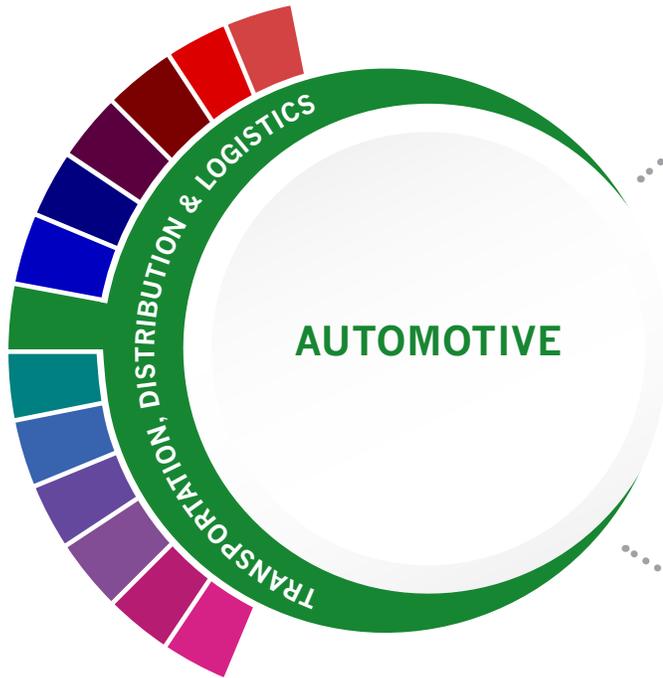
The Renewable Energy program of study helps students discover to assemble, inspect, maintain, and repair different equipment required for renewable energy. It introduces students to solar photovoltaic equipment and wind turbines, the systems and processes used to maintain and manage these types of equipment, and helps students develop the skills needed to do so.



The Science, Technology, Engineering, and Mathematics (STEM) Career Cluster focuses on planning, managing, and providing, scientific research and professional and technical services, including laboratory and testing services, and research and development services.

Successful completion of the Renewable Energy program of study will fulfill requirements of the Business and Industry or STEM endorsement.  
Statewide Approved Program of Study - September 2019

## COURSES



### LEVEL 1

Principles of Transportation Systems  
Small Engine Technology I  
Basic Collision Repair and Refinishing

### LEVEL 2

Automotive Basics  
Introduction to Transportation Technology  
Small Engine Technology II  
Collision Repair/Lab  
Occupational Safety and Environmental Technology I

### LEVEL 3

Automotive Technology I  
Energy and Power of Transportation Systems  
Paint and Refinishing/Lab

### LEVEL 4

Automotive Technology II/Lab  
Practicum in Transportation Systems  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Automotive Service Excellence (ASE) Entry Level	Master Collision Repair and Refinishing Technician	Autobody/Collision and Repair Technology/Technician		Mechanical Engineering
Automotive Service Excellence (ASE) Professional Level	Automobile Technician: various systems and parts	Medium/Heavy Vehicle and Truck Technology/Technician		
	Engine Machinist Technician	Mechanical Engineering/Mechanical Technology/Technician		
	Collision Repair and Refinish			

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Automotive Body and Related Repairers	\$40,144	1,456	25%
Automotive Service Technician and Mechanics	\$38,459	5,557	18%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
SkillsUSA competition  
Automotive Service Association

**Work Based Learning Activities:**  
Work at a local automotive repair or body shop.

The Automotive program of study teaches students how to repair and refinish automobiles and service various types of vehicles. Students may learn to collect payment for services or supplies and perform typical vehicle maintenance procedures such as lubrication, oil changes, installation of antifreeze, or replacement of accessories like wiper blades or tires.



The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Successful completion of the Automotive program of study will fulfill requirements of the Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019





## COURSES

### LEVEL 1

Introduction to Aircraft Technology

### LEVEL 2

Occupational Safety and Environmental Technology I  
Aviation Maintenance (TBD)

### LEVEL 3

Aircraft Airframe Technology/Lab

### LEVEL 4

Aircraft Powerplant Technology/Lab  
Practicum in Transportation Systems  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/INDUSTRY CERTIFICATION	CERTIFICATE/LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/DOCTORAL PROFESSIONAL DEGREE
Aerospace Manufacturing Certification	Avionics Electronics Technician	Avionics Maintenance Technology/Technician	Airframe Mechanics and Aircraft Maintenance Technology/Technician	
	Aircraft Electronics Technician	Aircraft Powerplant Technology/Technician		
	Aerospace/Aircraft Assembly Maintenance Certification	Airframe Mechanics and Aircraft Maintenance Technology/Technician		

\*Includes Level I and II Certificates

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Aircraft Mechanics and Technicians	\$58,698	1,469	9%
Avionics Technicians	\$59,114	170	9%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Participate in SkillsUSA  
Explore virtual aviation websites.

**Work Based Learning Activities:**  
Seek part-time work at an airport, aviation services agency, or airline.

The Aviation Maintenance program of study introduces students to the occupations and education opportunities related to inspecting aircraft, maintenance procedures, air navigational aids, air traffic controls, and communications equipment to ensure conformance with federal safety regulations.

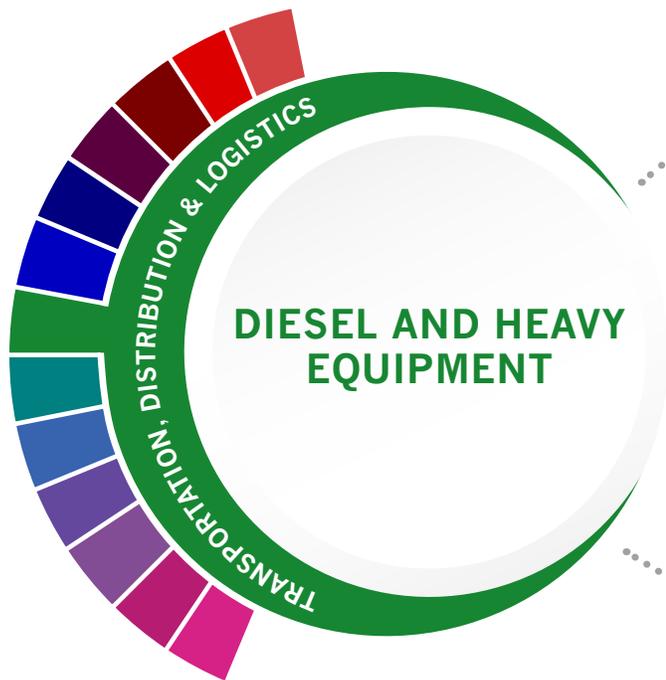


The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Successful completion of the Aviation program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Introduction to Transportation Technology  
Principles of Transportation Systems

### LEVEL 2

Diesel Equipment Technology I  
Occupational Safety and Environmental  
Technology I

### LEVEL 3

Diesel Equipment Technology II/Lab

### LEVEL 4

Practicum in Transportation Systems  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE	OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
ASE Medium/ Heavy Truck Technician, Brakes (T4)	Engine Machinist Technician	Diesel Mechanics Technology/ Technician			Bus and Truck Mechanics and Diesel Engine Specialists	\$44,574	3,150	21%
ASE Medium/Heavy Truck Technician, Diesel Engines (T2)	Light Vehicle Diesel Engines	Medium/Heavy Vehicle and Truck Technology/ Technician			Mobile Heavy Equipment Mechanics, Except Engines	\$47,299	1,627	16%
ASE Medium/Heavy Truck Technician, Drive Train (T3) - Professional	Transit Bus Technician	Heavy Equipment Maintenance Technology/ Technician						
ASE Medium/ Heavy Truck Technician, Electrical/ Electronic Systems (T6)	Fluid Power Mechanic							

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit [TXCTE.org](http://TXCTE.org).

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
Participate in SkillsUSA

**Work Based Learning Activities:**  
Volunteer or work part-time for a repair shop that works on engines

The Diesel and Heavy Equipment program of study teaches students to diagnose, repair, modify, or redo mechanical and hydraulic equipment on crane, bulldozer, grader, conveyor, construction equipment, bus, and truck diesel engines.



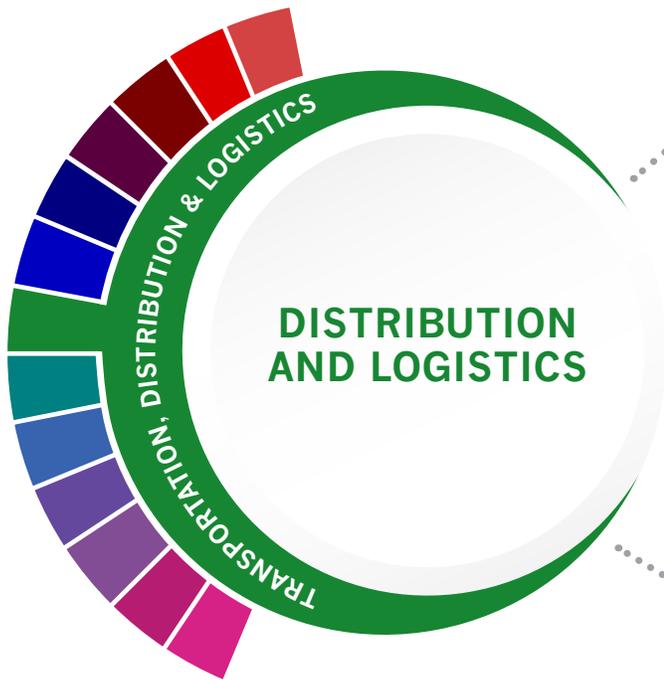
The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Successful completion of the Diesel and Heavy Equipment program of study will fulfill requirements of the Business and Industry Endorsement.

Approved Statewide Program of Study - September 2019



## COURSES



### LEVEL 1

Principles of Distribution and Logistics

### LEVEL 2

Management of Transportation Systems  
Concepts of Distribution and Logistics  
Technology (TBD)  
Occupational Safety and Environmental  
Technology I

### LEVEL 3

Distribution and Logistics  
Raster-Based Geographic Information  
Systems  
Logistics Engineering (TBD)

### LEVEL 4

Practicum in Distribution and Logistics  
Practicum in Entrepreneurship (TBD)  
Career Preparation I

## POSTSECONDARY OPTIONS

HIGH SCHOOL/ INDUSTRY CERTIFICATION	CERTIFICATE/ LICENSE*	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	MASTER'S/ DOCTORAL PROFESSIONAL DEGREE
MSSC Certified Logistics Technicians	Emergency Number Professional	Business Administration and Management, General		
	SAP Certified Application Associate - Logistics Execution and Warehouse Management	Operations Management and Supervision		
	Certified Billing and Coding Specialist	General Office Occupations and Clerical Services	Business/Commerce, General	Public Administration
	Cargo Shipper's Agent	Business Administration and Management, General		

Additional industry based certification information is available from the TEA CTE website.

For more information on postsecondary options for this program of study, visit TXCTE.org.

OCCUPATIONS	MEDIAN WAGE	ANNUAL OPENINGS	% GROWTH
Logisticians	\$77,210	1,550	13%
Supply Chain Managers	\$113,110	1,794	26%
Transportation, Storage, and Distribution Managers	\$89,045	965	17%
Purchasing Managers	\$121,722	497	14%
Purchasing Agents, Except Wholesale, Retail, and Farm Products	\$64,293	2,727	9%

### WORK BASED LEARNING AND EXPANDED LEARNING OPPORTUNITIES

**Exploration Activities:**  
SkillsUSA, FBA, FBLA, or  
Technology Student  
Association

**Work Based Learning Activities:**  
Intern at a distribution or  
warehousing center.

The Distribution and Logistics program of study teaches students how to plan, coordinate, and direct people and operational plans related to distributed goods and services. Students will learn how to manage daily operations and logistics personnel.



The Transportation, Distribution, and Logistics Career Cluster® focuses on careers in planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes related professional support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Successful completion of the Distribution and Logistics program of study will fulfill requirements of the Business and Industry Endorsement.  
Approved Statewide Program of Study - September 2019



**TEA APPENDIX 5:  
Statewide Work-Based Learning Framework and Employability Skills Rubric**

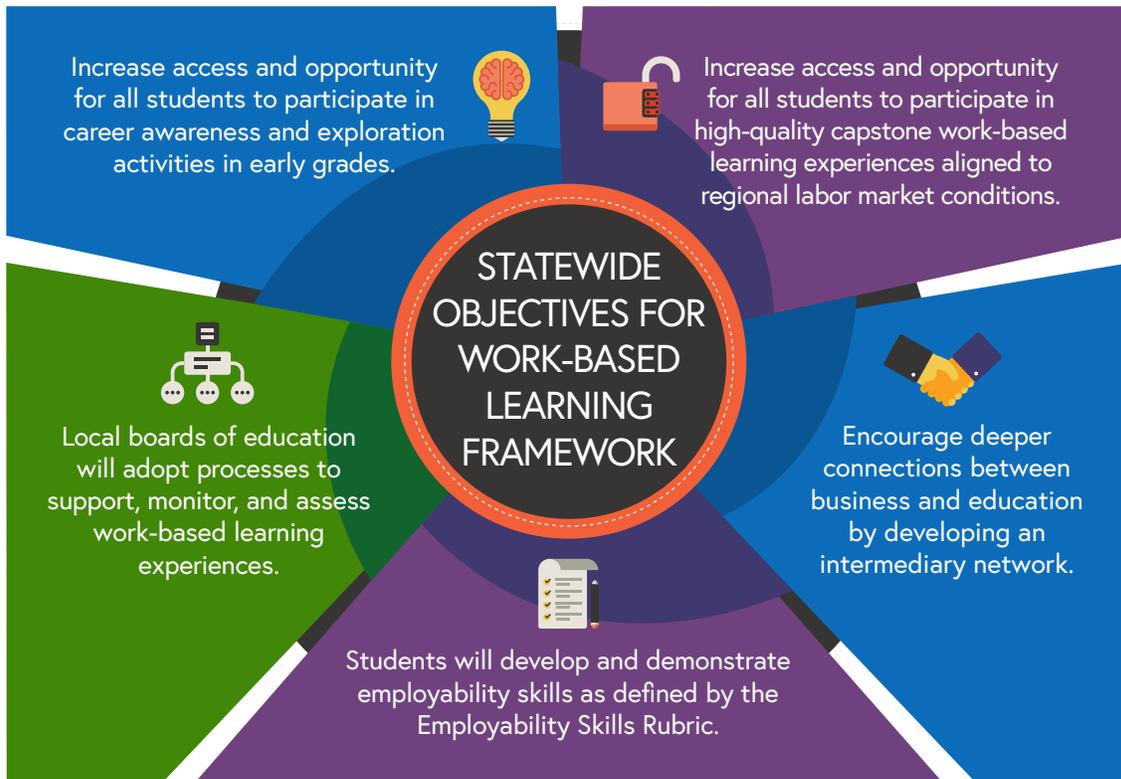
# TEXAS WORK-BASED LEARNING FRAMEWORK



The Texas Education Agency developed the Texas Work-Based Learning Framework to support school districts and charter schools in the development and improvement of their work-based learning efforts. The framework establishes statewide objectives, provides a definition of work-based learning and a delineation of capstone experiences, demonstrates that work-based learning activities should occur beginning in early grades and continue through postsecondary education, explains the theory of work-based learning, and outlines the pillars of work-based learning success.

# WORK-BASED LEARNING

POWERED BY



## DEFINITION OF WORK-BASED LEARNING

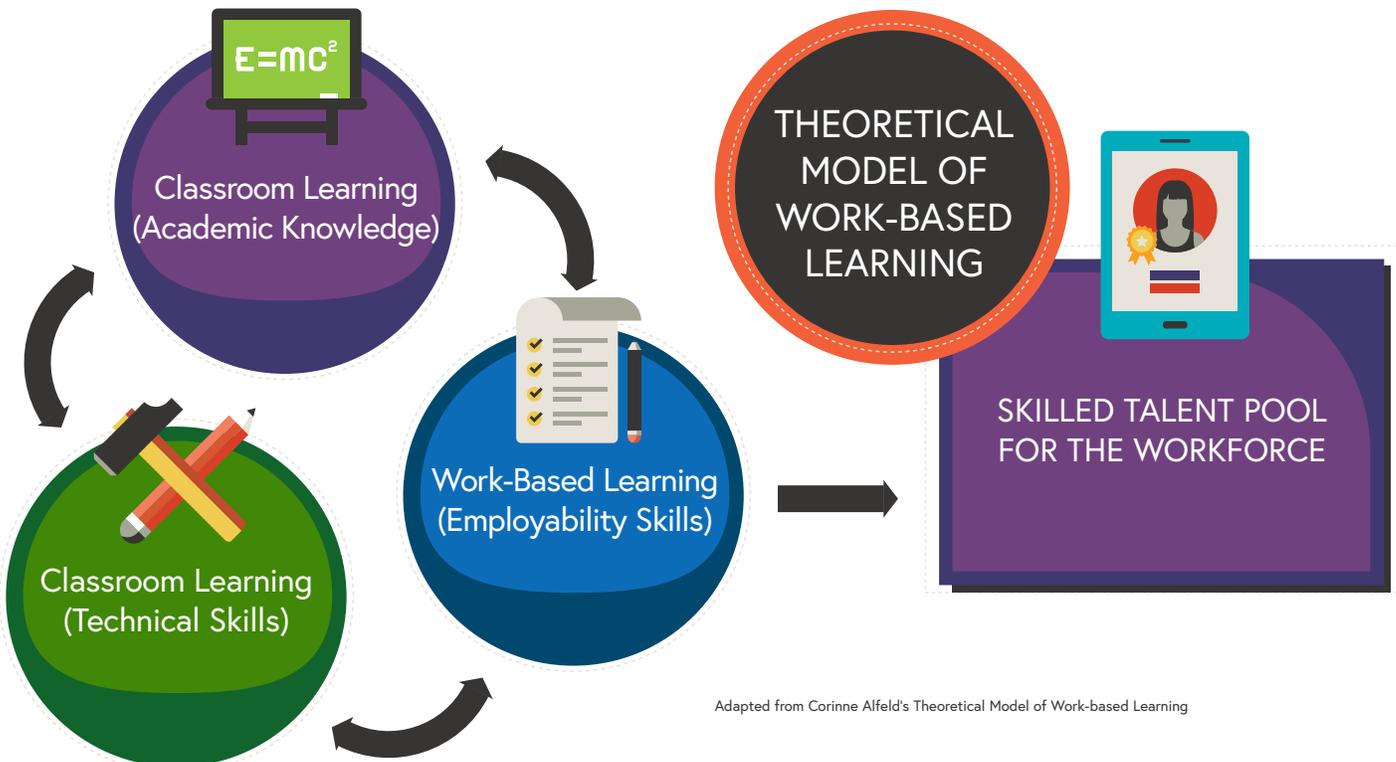
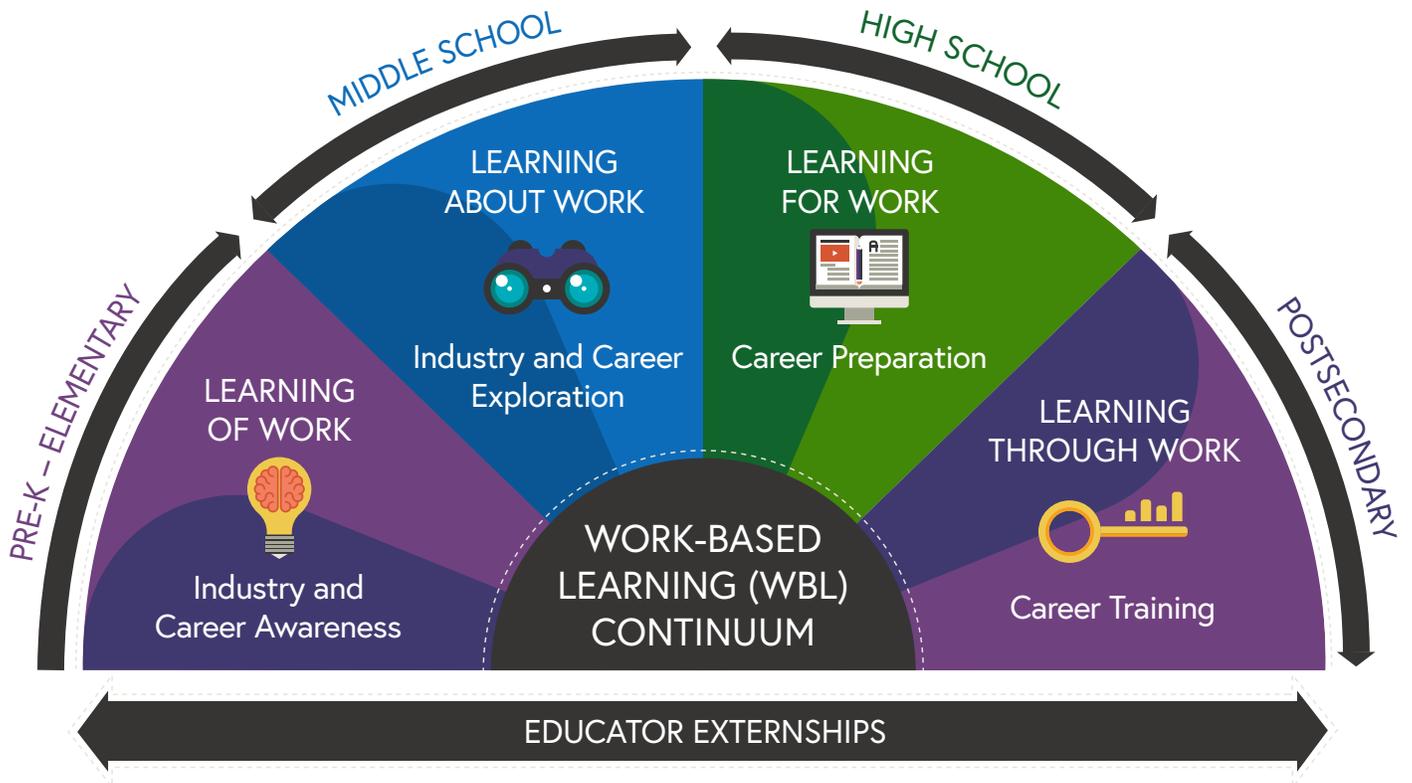
Work-Based Learning is a continuum of intentional activities and experiences designed to expand the boundaries of the classroom and prepare students for future career opportunities. Activities and experiences begin as early as pre-kindergarten and continue through postsecondary education.

Work-Based Learning provides opportunities for students to:

- Apply academic and technical knowledge and skills learned in the classroom in a realistic setting
- Engage with business and industry professionals
- Explore and experience potential career options
- Develop and practice essential employability skills

# WORK-BASED LEARNING

POWERED BY

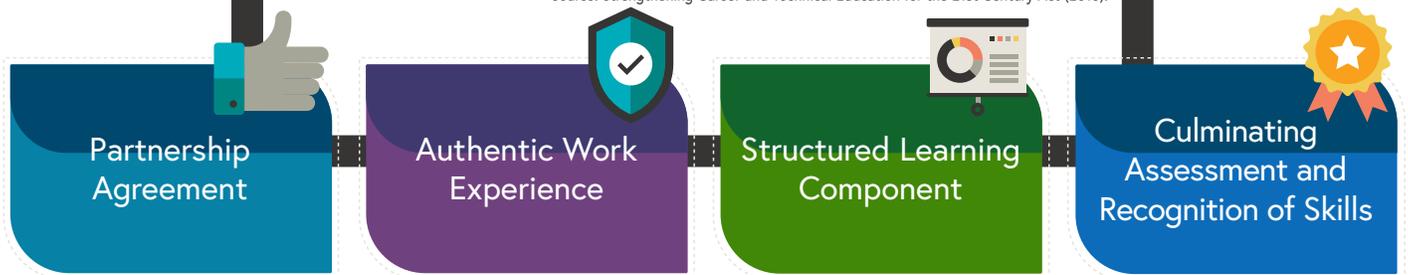


Adapted from Corinne Alfeld's Theoretical Model of Work-based Learning

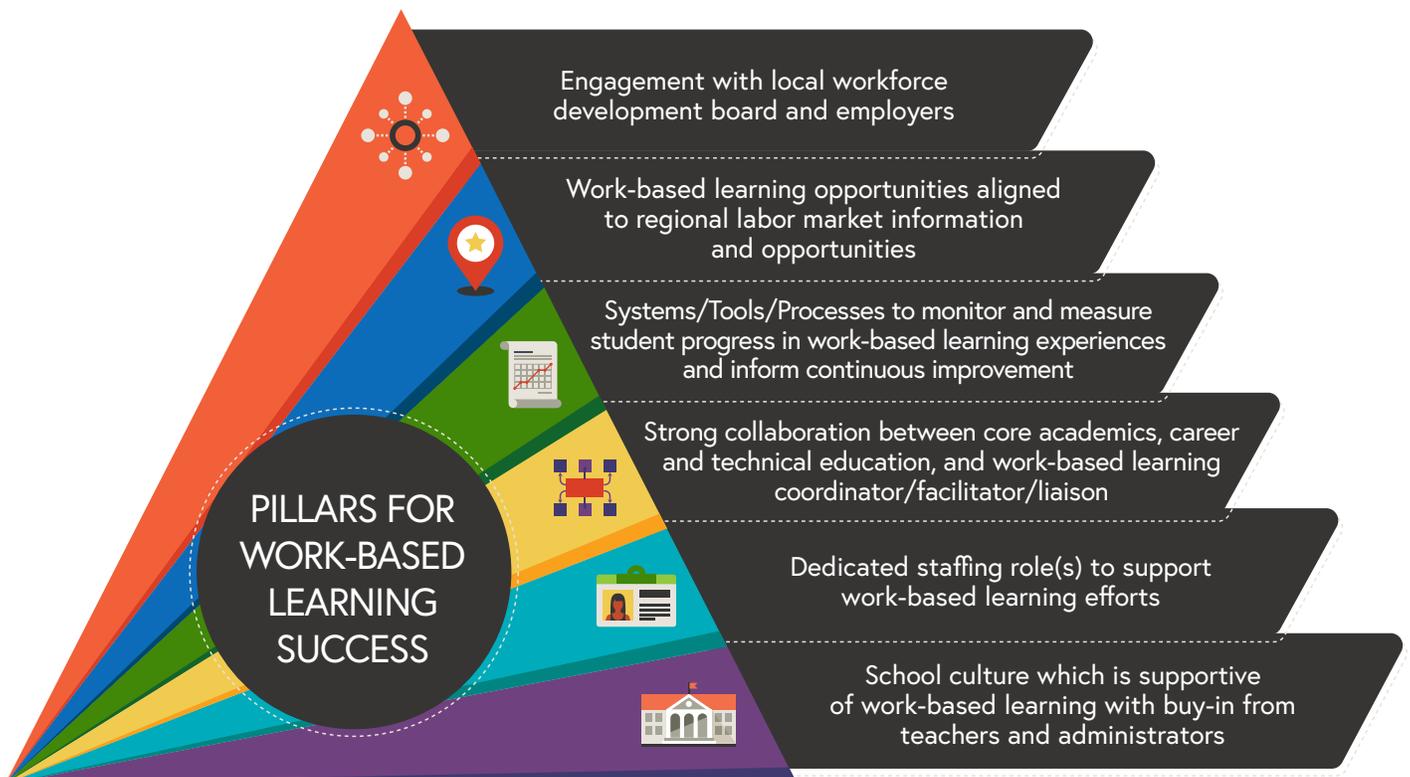
## ELEMENTS OF HIGH-QUALITY CAPSTONE WORK-BASED LEARNING EXPERIENCES

Capstone work-based learning experiences provide "sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in-depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction."

Source: Strengthening Career and Technical Education for the 21st Century Act (2018).



Source: Hauge, K. (2018). *States Continue Advancing Strategies to Scale Work-Based Learning*. Washington, DC: National Governors Association.



Work Based Learning Employability Skill Rubric

Skill	Criteria	Emerging	Developing	Accomplished	Exemplary
<b>Effective Relationships</b>					
<b>Interpersonal Skills</b>	<i>Teamwork</i>	<ul style="list-style-type: none"> <li>• Demonstrates respect and courtesy</li> <li>• Shows sincere interest in others and their concerns</li> <li>• Relates to people in an open, friendly, accepting manner</li> <li>• Collaborates well in a diverse team</li> <li>• Collaborates well in a team to solve problems</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Understands individual and team roles</li> <li>• Gives feedback to teammates</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Exercises leadership within a team</li> <li>• Reflects on the collaboration and makes recommendations for improvement</li> <li>• Solicits ideas and feedback from teammates</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Inspires and motivates others to perform at a high level</li> <li>• Analyzes how teams function</li> <li>• Sees differences in people (i.e., strengths, personality, culture, or background) as opportunities for learning about and approaching things differently</li> </ul>
	<i>Conflict resolution</i>	<ul style="list-style-type: none"> <li>• Talks through conflicts with others</li> <li>• Identifies the needs of others</li> <li>• Listens effectively to others</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Responds or adjusts to the needs of others</li> <li>• Receptive to feedback from others</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Seeks out resources to resolve conflicts</li> <li>• Provides alternative solutions or options to others</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Anticipates challenges and conflicts and seeks to mitigate</li> <li>• Persuades and influences others to take needed actions</li> <li>• Adapts product or process to meet the needs of the audience, customer, or project</li> </ul>
<b>Personal Qualities</b>	<i>Initiative</i>	<ul style="list-style-type: none"> <li>• With some supervision, completes assigned tasks on time and at a high-quality level</li> <li>• Communicates any potential delays to supervisor/teacher</li> <li>• Demonstrates diligence, perseverance, and self-control</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Asks questions to complete tasks</li> <li>• Plans out tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Understands and adheres to performance and accountability expectations</li> <li>• Seeks leadership opportunities</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Identifies and completes tasks without being told</li> <li>• Gives suggestions of new tasks or ways to improve current processes</li> <li>• Completes high-quality, independent work on time without direct supervision</li> </ul>
	<i>Adaptability</i>	<ul style="list-style-type: none"> <li>• Asks for help</li> <li>• Seeks feedback, guidance, and information in a proactive manner</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Compromises</li> <li>• Shows resilience in the face of constraints, frustrations, or adversity</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Accepts constructive criticism and modifies behavior</li> <li>• Embraces new methods or approaches</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Seeks new learning opportunities</li> <li>• Adjusts to multiple demands, shifting priorities, ambiguity, and rapid change</li> </ul>

### Work Based Learning Employability Skill Rubric

Skill	Criteria	Emerging	Developing	Accomplished	Exemplary
	<i>Professionalism and integrity</i>	<ul style="list-style-type: none"> <li>• Understands and adheres to ethical codes of conduct</li> <li>• Demonstrates principles and values that align to the workplace/ classroom</li> <li>• Demonstrates trustworthiness, honesty, loyalty, punctuality, and reliability</li> <li>• Possesses a positive attitude and demeanor when working with others</li> <li>• Dresses and grooms appropriately</li> <li>• Handles information confidentially and appropriately</li> <li>• Maintains a professional and appropriate social media presence</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Attributes ideas and information to source materials and people</li> <li>• Understands own strengths and opportunities for improvement</li> <li>• Follows through on promises and commitments</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Advocates for oneself by communicating needs</li> <li>• Takes actions to build skills</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Maintains a positive attitude and professional demeanor under difficult situations</li> <li>• Admits mistakes and takes personal responsibility</li> <li>• Takes ownership for professional growth</li> </ul>
<b>Workplace Skills</b>					
<b>Resource Management</b>	<i>Manages time, money, resources, and personnel</i>	<ul style="list-style-type: none"> <li>• Arrives on time</li> <li>• Identifies resources available and needed to complete project or tasks</li> <li>• Completes tasks in the allotted time and manages own time appropriately</li> <li>• Adheres to budget or resources allocated</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Uses resources and materials effectively</li> <li>• Understands roles of others and the value of their time</li> <li>• Takes inventory of materials</li> <li>• Understands project or task timeline</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Creates a plan to complete work on time</li> <li>• Identifies and understands strengths and opportunities for growth of team members</li> <li>• Assigns staff roles or tasks based on strengths</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>• Understands how resources affect profitability and timelines</li> <li>• Maximizes resources to save money and/or time</li> <li>• Prioritizes use of resources based on organizational goals or classroom guidelines</li> </ul>

Work Based Learning Employability Skill Rubric

Skill	Criteria	Emerging	Developing	Accomplished	Exemplary
Information Use	<i>Locate, organize, analyze, use, and communicate information</i>	<ul style="list-style-type: none"> <li>Utilizes handbooks or documents to guide information flow</li> <li>Identifies valid, reliable, and relevant sources</li> <li>Follows guidelines for information storage and organization</li> <li>Applies relevant and credible information and sources to complete tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Organizes information based on clear patterns</li> <li>Identifies which information is relevant and important to tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Prioritizes information</li> <li>Communicates with clarity to others</li> <li>Presents analyzed data and communicates findings in a variety of formats</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Seeks out resources and information relevant to the work or project in an independent manner</li> <li>Analyzes relationships and patterns in information or data</li> <li>Understands the connection of information to other tasks or parts of the project</li> </ul>
Communication	<i>Verbal communication</i>	<ul style="list-style-type: none"> <li>Speaks clearly and audibly with proper enunciation</li> <li>Expresses ideas clearly in groups and one-to-one conversations</li> <li>Uses nonverbal cues appropriately aligned to message</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Uses appropriate and professional language</li> <li>Uses technical terminology and academic vocabulary accurately</li> <li>Identifies appropriate communication style to achieve goals</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Communicates persuasively</li> <li>Checks for understanding and rephrases</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Plans and presents oral presentations</li> <li>Paces presentations appropriately to convey message and ideas</li> <li>Understands cultural implications of communication</li> </ul>
	<i>Active listening</i>	<ul style="list-style-type: none"> <li>Exhibits culturally appropriate body language</li> <li>Responds to verbal and nonverbal cues from others</li> <li>Applies what was heard to the task</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Takes notes while listening</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Restates or repeats what was heard to confirm information</li> <li>Responds and asks clarifying questions</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Summarizes key points discussed</li> </ul>
	<i>Comprehends written material</i>	<ul style="list-style-type: none"> <li>Understands and follows written directions and policies</li> <li>Reads materials specific to work or tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Asks clarifying questions regarding technical or work-specific written materials</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Summarizes key points from technical or work-specific written materials</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Offers feedback and critiques to technical or work-specific written materials</li> </ul>

Work Based Learning Employability Skill Rubric

Skill	Criteria	Emerging	Developing	Accomplished	Exemplary
	<i>Conveys information in writing</i>	<ul style="list-style-type: none"> <li>Writes clearly and coherently using standard writing conventions</li> <li>Cites properly</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Identifies appropriate method, medium, format, and style to convey information</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Conveys written information in multiple industry or career-specific mediums and formats</li> <li>Reviews and edits written work constructively</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Writes using the industry or academic-specific terminology</li> <li>Conveys information effectively and accurately through formal and informal documents</li> </ul>
<b>Systems Thinking</b>	<i>Understands, uses, monitors, and improves systems</i>	<ul style="list-style-type: none"> <li>Understands how information and processes flow within organizations</li> <li>Understands relationship between various departments and systems</li> <li>Understands organizational makeup and structure</li> <li>Identifies processes and procedures used within organizations</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Understands how components fit within and support a system</li> <li>Understands how processes and procedures create efficiencies within organizations</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Evaluates inefficiencies within a system</li> <li>Recommends improvements to processes and procedures to address inefficiencies</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Takes appropriate action based on systems in the school or workplace</li> <li>Understands assumptions and beliefs of different entities and/or groups within the system</li> <li>Identifies approaches or strategies to monitor systems</li> </ul>
<b>Technology Use</b>	<i>Understands and uses technology</i>	<ul style="list-style-type: none"> <li>Understands and follows safety and guidelines procedures for tools and technology</li> <li>Identifies which technologies are necessary for the job or career</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Understands which technologies are needed to complete specific academic or workplace tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Uses appropriate technology to complete tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Produces a product using appropriate technology</li> <li>Seeks opportunities to improve technological skills</li> </ul>
<b>Applied Knowledge</b>					
<b>Applied Academic Knowledge</b>	<i>Academic application</i>	<ul style="list-style-type: none"> <li>Identifies academic knowledge (i.e., reading, writing, mathematics, science, social studies) most relevant to achieving college and career goals</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Understands which academic knowledge is most relevant to classroom or work tasks</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Applies relevant academic knowledge to complete a classroom or workplace task</li> </ul>	<p>...and</p> <ul style="list-style-type: none"> <li>Applies relevant academic knowledge to solve a classroom or workplace problem</li> </ul>

### Work Based Learning Employability Skill Rubric

Skill	Criteria	Emerging	Developing	Accomplished	Exemplary
<b>Critical Thinking</b>	<i>Problem solving</i>	<ul style="list-style-type: none"> <li>• Identifies the problem or core issue</li> <li>• Utilizes a process to solve problems</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Negotiates pros and cons of ideas, approaches, and solutions</li> <li>• Develops a plan to address problems</li> <li>• Learns from mistakes from past issues or problems</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Debates an issue and converges to an understanding by questioning and assessing problems</li> <li>• Displays analytical and strategic thinking</li> <li>• Develops and applies multiple strategies to solve a problem</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Develops and defends solutions to problems based on evidence</li> <li>• Evaluates potential solutions for best possible outcomes</li> <li>• Considers a broad range of internal and external factors when solving problems and making decisions</li> </ul>
	<i>Creative thinking</i>	<ul style="list-style-type: none"> <li>• Proposes familiar approaches to address challenges or complete tasks</li> <li>• Offers ideas that are outside the norm</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Generates alternative solutions and ideas to address challenges and complete tasks</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Creates and shares innovative solutions to address challenges and ideas to complete tasks</li> </ul>	<p style="text-align: center;">...and</p> <ul style="list-style-type: none"> <li>• Contributes to a culture of innovation</li> <li>• Takes risks when justified</li> <li>• Understands design in products and processes</li> </ul>

**TEA APPENDIX 6:  
College and Career Readiness School Models for Early College High Schools,  
P-Tech/ICIA High Schools and T-STEM High Schools**

# The Early College High School Blueprint

## Design Elements



All designated ECHSs (Provisional, Early College, Distinguished Early College) are required to meet all of the design elements for each benchmark annually.



All designated ECHSs (Provisional, Early College, Distinguished Early College) are required to meet OBMs on data indicators related to access, achievement, and attainment.

## Outcomes-Based Measures (OBMs)

### PROVISIONAL EARLY COLLEGE



Provisional Early Colleges are new ECHSs that demonstrate they can implement all the design elements for each benchmark and meet the Provisional Early College OBMs. For public purposes, campuses are identified as Early College.

### EARLY COLLEGE



Early College designees maintain designation by demonstrating they can implement all of the design elements for each benchmark and meet the Early College OBMs.

### DISTINGUISHED EARLY COLLEGE



Distinguished Early Colleges have been designated as Early Colleges for at least five years, and demonstrate that they can implement all of the design elements for each benchmark and meet the Distinguished Early College OBMs.

## Needs Improvement



At any time, if an ECHS doesn't meet the OBMs, the ECHS may be categorized as needs improvement and will receive targeted technical assistance and has no more than two years to meet the OBMs or no longer receive designation. If a Distinguished Early College doesn't meet the OBMs, the ECHS will be designated as an Early College, given that they meet the Early College OBMs.

**TEA is currently in a phase-in process for the new ECHS Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.**





## Benchmark 1: Target Population

The Early College High School shall serve, or include plans to scale up to serve, students in grades 9 through 12, and shall target and enroll students who are at risk of dropping out of school as defined by the Public Education Information Management System (PEIMS) and who might not otherwise go to college.

### Design Elements

#### All ECHSs must implement and meet the following requirements:

1. The ECHS recruitment and enrollment processes shall identify, recruit, and enroll the subpopulations of at-risk students (as defined by PEIMS), including, but not limited to, students who are of limited English proficiency, students with disabilities, or students who have failed a state administered assessment. Enrollment decisions shall not be based on state assessment scores, discipline history, teacher recommendation, parent or student essays, minimum grade point average (GPA), or other criteria that create barriers for student enrollment.
2. The ECHS shall identify, recruit, and enroll subpopulations (in addition to those who are at risk as defined by PEIMS) that are historically underrepresented in college courses (e.g., first generation college goers, students of low socioeconomic status, African American, Hispanic, Native American.)
3. The ECHS shall clearly document recruitment and enrollment policies and practices; refining and improving them annually based on data reviews.
4. Recruitment and enrollment processes (including marketing and recruitment plans, materials, and timelines) shall include input from key stakeholders (e.g., parents and community members; postsecondary partners); target student populations as described in 1 and 2 above; and include regular activities to educate students, counselors, principals, parents, and school board and community members.
5. For admissions, the ECHS shall use either a performance-blind, open-access lottery system that encourages and considers applications from all students (all students have an equal opportunity for acceptance, regardless of background or academic performance) or a weighted lottery that favors students who are at risk or who are part of the targeted subpopulations for the ECHS.

### Required Activities and Products

#### Activities:

- All products shall be published on the ECHS's website and be made available to TEA upon request.
- All products shall be maintained in accordance with the local records retention policy.

#### Products:

- Written admission policy and enrollment application
- Written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community
- Brochures and marketing in Spanish, English, and/or other relevant language(s)
- Written communication plan for targeting identified audiences, parents, community members, school board, higher education personnel, etc.



## Benchmark 2: Partnership Agreement

The Early College High School shall have a current, signed Memorandum of Understanding (MOU) for each school year that:

- Defines the partnership between the school district(s) and the institution(s) of higher education (IHE) and addresses topics including, but not limited to, the ECHS location; transferability of college credit between a 2-year and 4-year institution; the allocation of costs for tuition, fees, and textbooks; and student transportation;
- States that the school district or charter in which the student is enrolled shall pay for college tuition (for all dual credit courses, including retakes), fees (including TSI administration fees), and required textbooks to the extent those charges are not waived by the partner IHE;
- Defines an active partnership between the school district(s) and the IHE(s), which shall include joint decision-making procedures that allow for the planning and implementation of a coherent program across institutions; and
- Includes provisions and processes for collecting, sharing, and reviewing program and student data to assess the progress of the ECHS.

### Design Elements

**All ECHSs shall develop, sign, and execute a MOU that includes the following components (at a minimum):**

- Courses of study, which enables a student to combine high school courses and college-level courses to earn either an associate degree or at least 60 semester credit hours toward a baccalaureate degree
- Curriculum alignment
- Policy for advising students on the transferability of all college credit offered and earned
- Policy to ensure the IHE transcripts college credit earned through dual credit in the same semester that credit is earned
- Policy regarding advising students as to the transferability and applicability to baccalaureate degree plans for all college credit offered and earned (college credits earned during high school should allow students to progress from an associates degree to a bachelor's degree and beyond in their chosen field)
- ECHS students access to the IHE facilities, services and resources
- Policies regarding eligibility of ECHS students for financial assistance from the higher education partner(s), specifically, waivers for tuition and fees
- Professional development for ECHS faculty (including both district and IHE faculty/staff)
- Data sharing agreement that includes provisions for:
- Teacher data such as qualifications
- Student level data such as credit hours taken and earned; GPA, formative data to assess if student is on track to be successful in college level courses
- Administration of statewide instruments under TEC Subchapter B, Chapter 39
- Transportation costs and fees

- Grading periods and policies
- Instructional materials
- Instructional calendar including location of each course that will be offered
- Student enrollment and attendance policies
- Provisions for discontinuing ECHS operation and the ensure students previously enrolled will have opportunity to complete their course of study

### Required Activities and Products

#### Activities:

- All products shall be published on the ECHS's website and be made available to TEA upon request.
- All products shall be maintained in accordance with the local records retention policy.
- Campuses must submit their final signed MOU to TEA when initially applying for early college designation or are provisionally designated.
- ECHS Campuses that are designated early college or distinguished early college are not required to submit the MOU during the annual designation process (but must have it available upon TEA request).
- ECHS campuses in needs improvement may be required to resubmit their MOU to TEA.

#### Products:

- Final, signed, and executed MOU



### Benchmark 3: P-16 Leadership Initiatives

The school district and institution(s) of higher education (IHE) partners shall develop and maintain a leadership team that meets regularly (e.g., quarterly) to address issues of design, implementation, ongoing implementation, and sustainability. Membership should include the Early College High School leader and individuals with decision-making authority from the district(s) and IHE(s).

#### Design Elements

##### All ECHSs must implement and meet the following requirements:

1. The ECHS shall establish a leadership team that includes high-level personnel with decision-making authority who meet regularly and report to each organization. Regularly scheduled meetings must address the following topics:
  - a. Identify members and the role each member will play in the design, governance, operations, accountability, curriculum development, professional development, outreach, sustainability, and continuous monitoring and improvement of the ECHS
  - b. Annually review the MOU for necessary revisions
  - c. Assume shared responsibility (between the school district and the IHE) for meeting annual outcomes-based measures and providing annual reports to their district and IHE boards, as well as to the public.
  - d. Monitor progress on meeting the Blueprint, including reviewing data to ensure the ECHS is on-track to meet outcomes-based measures
  - e. Guide mid-course corrections as needed
2. The leadership team shall include and meet regularly—in person and/or virtually—with the leaders from the district and IHE who have decision-making authority:

##### District leaders (may include):

- Superintendent
- Assistant superintendent of curriculum and instruction, or equivalent position
- ECHS principal or director
- CTE Director (if applicable to the ECHS model)
- Department Chairs
- School counselors
- School-business partners

##### IHE leaders (may include):

- College or university president
- Provost
- Department Chairs for core academic disciplines
- ECHS liaison

3. Sustainability structures shall be identified and implemented to address and minimize the challenges of staff turnover and potential fluctuations in funding.

### Required Activities and Products

**Activities:**

- All products shall be published on the ECHS’s website and be made available to TEA upon request.
- All products shall be maintained in accordance with the local records retention policy.

**Products:**

- ECHS/IHE leadership meeting agendas and minutes
- School board and board of regents’ presentations
- Description of each member and role in committee

## Benchmark 4: Curriculum and Support



The Early College High School shall provide a rigorous course of study that enables a participating student to receive a high school diploma and complete the Texas Higher Education Coordinating Board's (THECB) core curriculum (as defined by the Texas Administrative Code (TAC) §4.28), obtain certifications, or earn an associate's degree, or earn at least 60 credit hours toward a baccalaureate degree during grades 9-12. The ECHS shall provide students with academic, social, and emotional support in their course of study.

### Design Elements

#### All ECHSs must implement and meet the following requirements:

1. The ECHS shall provide a course of study that enables participating students the opportunity to complete high school graduation requirements and earn an associate's degree or at least 60 semester credit hours toward a baccalaureate degree. A four-year crosswalk must be in place detailing how students will progress toward this goal including alignment of high school and college level courses. This crosswalk must provide pathways to a certification, an associate's degree, or a baccalaureate degree and must follow the courses and fields of study listed in the THECB Lower Division Academic Course Guide Manual (ACGM) and/or the Workforce Education Course Manual (WECM). The campus may implement multiple dual enrollment delivery models:
  - a. College courses taught on the college campus by college faculty
  - b. College courses taught on the high school campus by college faculty
  - c. College courses taught on the high school campus by qualified high school faculty
  - d. College courses taught virtually, via distance/online/blended learning
2. The ECHS shall support students in their course of study.
  - a. The ECHS shall provide academic support to the students by personalizing the learning environment in the following ways:
    - Developing individualized student plans for ongoing academic support,
    - Providing tutoring and/or Saturday school for identified students in need of academic supports,
    - Providing advisory and/or college readiness and support time built into the program of study for all students, and
    - Establishing a mentorship program available to all students.
  - b. The ECHS shall provide social and emotional support to the students as needed, including:
    - connections to social services
    - parent outreach and involvement opportunities
  - c. The ECHS shall provide enrichment opportunities, including:
    - A structured program of community service to promote community involvement.
    - Partnering with community businesses to expose students to a variety of potential career options and possible internship opportunities.
    - Providing college awareness to current and prospective students and families, including:
      - i. Application assistance,

- II. Financial aid counseling, and
  - III. College and career counseling.
3. The ECHS shall biannually implement a structured data review processes designed to identify student strengths and weaknesses and develop individual instructional support plans.

**Required Activities and Products**

- Activities:**
- All products shall be published on the ECHS’s website and be made available to TEA upon request.
  - All products shall be maintained in accordance with the local records retention policy.
- Products:**
- 60 college credit hours crosswalk
  - Calendar of family outreach events
  - Professional learning community agendas and notes
  - Advisory/study skills curriculum material
  - Master schedules





## Benchmark 5: Academic Rigor and Readiness

The Early College High School shall administer a Texas Success Initiative (TSI) college placement exam (as defined by TAC §4.53) to all accepted ECHS students to assess college readiness, design individual instructional support plans, and enable students to begin college courses based on their performance on the exam.

### Design Elements

All ECHSs must implement and meet the following requirements:

1. The ECHS shall provide a TSI assessment to accepted students as early as possible (however, not as a prerequisite for admissions to the ECHS).
  - a. The ECHS shall implement a plan for TSI success, including academic preparation classes for accepted students, academic interventions for students who do not pass TSI, and assessments fee waivers for all administrations of the TSI test.
  - b. The ECHS shall publish on their website the dates the TSI will be administered.
  - c. The ECHS shall review TSI testing data, particularly the number/percentage of students who have currently passed each section of the TSI assessment, to ensure the ECHS is on track to meeting outcomes-based measures (see below).
2. The ECHS is a TSI assessment site, or is in the process of becoming a TSI assessment site, allowing frequent testing and access to raw data that can be used to identify student weaknesses and create tailored interventions and individualized instructional plans to improve student readiness and success.
3. The ECHS provides a bridge program (an intensive academic preparation program that provides opportunities to strengthen academic skills necessary for high school and college readiness) to prepare students for TSI and provide academic interventions for those who do not pass TSI.

### Required Activities and Products

#### Activities:

- All products shall be published on the ECHS's website and be made available to TEA upon request.
- All products shall be maintained in accordance with the local records retention policy.

#### Products:

- Calendar of TSI test administration dates
- Aggregate reports of TSI exam performance
- Tutoring and bridge program schedules
- Bridge program curriculum



## Benchmark 6: School Design

The Early College High School must provide a full-day program (i.e., full day as defined in PEIMS) at an autonomous high school (i.e., a high school with ECHS leader assigned to ECHS responsibilities who has scheduling, hiring, and budget authority), an IHE liaison with decision-making authority, and a highly qualified staff with support and training.

### Design Elements

**All ECHSs must implement and meet the following:**

1. The ECHS location shall be:
  - a. On a college or university campus, or
  - b. In a high school—as a standalone high school campus or in a smaller learning community within a larger high school.
2. ECHS staff shall include:
  - a. An ECHS leader who has scheduling, hiring, and budget autonomy
  - b. An IHE liaison with decision-making authority and interacts directly and frequently (in-person or virtually) with ECHS the leader and the dual credit provider
  - c. Highly qualified ECHS teachers who work directly with the ECHS students, which may include adjunct high school faculty capable of teaching college-level courses
  - d. Counseling staff who support the ECHS students, including activities such as: coordinating with the IHE for registration and monitor of students' high school and college transcripts, monitoring high school and college courses to ensure both requirement are met.
3. The ECHS students shall be cohorted for core classes to the extent possible; this does not exclude non-ECHS students from enrolling in the same class.
4. ECHS shall implement an annual professional development plan for teachers and staff, focused on research-based instructional strategies that focus on rigor, build college- and career-readiness, is based on needs assessment of student data, and includes both high school and dual credit teachers. Professional development should include, but is not limited to:
  - a. A mentoring and induction program for newly hired staff, providing them with the instructional and interpersonal skills and capacities needed for success in an ECHS.
  - b. Provide opportunities for ECHS teachers and higher-education faculty to receive extensive training and support through regularly scheduled formative peer observations and collaboration opportunities with IHE faculty.

## Required Activities and Products

### Activities:

- All products shall be published on the ECHS's website and be made available to TEA upon request.
- All products shall be maintained in accordance with the local records retention policy.

### Products:

- Mentor/induction program plans
- Annual training or professional development plan with ECHS and IHE faculty
- ECHS leader/liaison meeting agendas and notes

## Access Outcomes-Based Measures

*TEA is currently in a phase-in process for the new ECHS Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional Early College	Early College	Distinguished Early College
<b>Requirements</b>	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>three</b> additional target population data indicators	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>three</b> additional target population data indicators	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>four</b> additional target population data indicators
ECHS proportionate to or over-represents <b>at-risk students for incoming 9th graders</b>	No more than 20% points under district	No more than 15% points under district	No more than 10% points under district
ECHS proportionate to or over-represents <b>economically disadvantaged students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
ECHS proportionate to or over-represents <b>African American students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
ECHS proportionate to or over-represents <b>Hispanic students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
ECHS proportionate to or over-represents <b>males</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
ECHS proportionate to or over-represents <b>ELL and SWDs</b>	Not taken into account for designation	Not taken into account for designation	No more than 5% points under district

## Attainment Outcomes-Based Measures

TEA is currently in a phase-in process for the new ECHS Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.

Data Indicators		Provisional Early College	Early College	Distinguished Early College
<b>Requirements</b>		Must meet college English, college math, and 15 college credit targets	Must meet targets on at least <b>five</b> attainment data indicators	Must meet targets on at least <b>six</b> attainment data indicators
Grade-to-grade persistence by subgroup (weighted)		Not taken into account for designation	Calculated to ensure the school meets the 4-year graduation target	Calculated to ensure the school meets the 4-year graduation target
Completing one college-level English course by end of 11th grade (any)		80% of students (by the fourth year of implementation)	90% of students	100% of students
Completing one college-level math course by end of 11th grade (any)		80% of students (by the fourth year of implementation)	90% of students	100% of students
Earning 15 college credits (any) by graduation		50% of students (by the fourth year of implementation)	80% of students	95% of students
Earning 30 college credits (any) by graduation		Not taken into account for designation	50% of students	65% of students
Earning postsecondary degree and/or credential by high school graduation		Not taken into account for designation	30% of students	40% of students
Graduating high school in 4 years (4-year cohort graduation rate)		Not taken into account for designation	Meets the statewide 4-year graduation rate	Exceeds the statewide 4-year graduation rate

## Achievement Outcomes-Based Measures

*TEA is currently in a phase-in process for the new ECHS Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional Early College	Early College	Distinguished Early College
<b>Requirements</b>	Must meet at least <b>three</b> TSI targets	Must meet at least <b>four</b> achievement data indicators	Must meet at least <b>five</b> achievement data indicators
TSI College Readiness Standards in reading	65% passing rate	70% passing rate	75% passing rate
TSI College Readiness Standards in writing	75% passing rate	80% passing rate	85% passing rate
TSI College Readiness Standards in math	50% passing rate	60% passing rate	75% passing rate
TSI College Readiness Standards in all 3 subjects	35% passing rate	40% passing rate	50% passing rate
Algebra I EOC assessment in 9 <sup>th</sup> grade	Not taken into account for designation	85% of students passing	45% percent of students passing and meeting the advanced standard
English II EOC assessment (grades 9-11)	Not taken into account for designation	85% of students passing	25% percent of students passing and meeting the advanced standard

# P-TECH/ICIA Blueprint



## Benchmark 1: School Design

The P-TECH/ICIA program must offer open enrollment and flexible scheduling structures that enable students to combine high school, postsecondary courses and work-based learning, at no cost to participating students.

### Design Elements

#### All P-TECH/ICIAs must implement and meet the following requirements:

1. The P-TECH/ICIA location shall be:
  - a. In a high school, or
    - i. as a standalone high school campus or
    - ii. in a smaller learning community within a larger high school
  - b. At a central location, such as a CTE Center where students are enrolled at their home campus, or
  - c. On a college or university campus
2. P-TECH/ICIA staff shall include:
  - a. A building level leader who has scheduling, hiring, and budget decisions
  - b. Industry/Business partner liaison with decision making authority who interacts directly and frequently (in person or virtually) with P-TECH/ICIA leader
  - c. An Institute of Higher Education (IHE) liaison with decision making authority and interacts directly and frequently (in person or virtually) with P-TECH/ICIA leader
  - d. Highly qualified P-TECH/ICIA teachers who work directly with the students, which may include adjunct high school faculty capable of teaching college-level courses
  - e. Counseling staff who support P-TECH/ICIA students, including activities such as: coordinating with Institutions of Higher Education (IHE) for registration, monitoring of students' high school and college transcripts, and monitoring high school and college courses to ensure all requirements are met
3. The P-TECH/ICIA shall establish a leadership team that includes high-level personnel from the school district, campus, industry/business partners, and IHE with decision-making authority who meet regularly and report to each organization. Regularly scheduled meetings must address the following topics:
  - a. Identification of members and the role each member will play in the design, governance, operations, accountability, curriculum development, professional development, outreach, sustainability, and continuous monitoring and improvement of the P-TECH/ICIA
  - b. Share responsibility (between the school district, campus, industry/business partners, and IHE) for meeting annual outcomes-based measures and providing annual reports to their respective boards as well as to the public
  - c. Monitoring of progress on meeting the Blueprint, including reviewing data to ensure the P-TECH/ICIA is on-track to meet outcomes-based measures
  - d. Mid-course corrections as needed
  - e. Sustainability structures to address and minimize the challenges of staff turnover and potential fluctuations in funding
4. The leadership team shall include and meet regularly (in person and/or virtually) with the leaders from the school district, campus, business/industry, chambers of commerce, non-profit foundations, and IHE who have decision-making authority:

# P-TECH/ICIA Blueprint

## Benchmark 1: School Design

The P-TECH/ICIA program must offer open enrollment and flexible scheduling structures that enable students to combine high school, postsecondary courses and work-based learning, at no cost to participating students.

### Design Elements

#### District leaders (may include):

- a. Superintendent
- b. Assistant superintendent of curriculum and instruction, or equivalent position
- c. P-TECH/ICIA principal or director
- d. CTE Director (if applicable to the P-TECH/ICIA model)
- e. Department chairs
- f. School counselors

#### Business/Industry Partner (may include):

- a. CEO/President
- b. Education/Community Outreach Specialist/Community Organizations such as a Chamber of Commerce and Non-Profit Foundations

#### IHE leaders (may include):

- a. College or university president
- b. Provost
- c. Department chairs for core academic disciplines
- d. P-TECH/ICIA liaison

5. Implement an annual professional development plan for teachers and staff, focused on research-based instructional strategies that focus on rigor, build college- and career-readiness, are based on needs assessment of student data, and includes both high school and dual credit teachers. Professional development may include, but is not limited to:
  - a. A mentoring and induction program for newly hired staff, providing them with the instructional and interpersonal skills and capacities needed for success in an advanced academic setting
  - b. An externship program to expose teachers, counselors, and/or administrators to content in careers in the pathways identified by the P-TECH/ICIA
  - c. Opportunities for teachers to collaborate, plan and engage in relevant professional development
6. Provide opportunities for P-TECH/ICIA teachers to receive extensive training and support through regularly scheduled formative peer observations and collaboration opportunities with feeder pattern focus groups, industry/business and/or IHE partners
7. The P-TECH/ICIA program shall provide flexible, individualized scheduling that allows students the opportunity to earn a high school diploma, industry certifications, an associate degree, and engage in appropriate work-based learning at every grade level
8. The P-TECH/ICIA students shall be cohorted into core classes to the extent possible; this does not exclude non-P-TECH/ICIA students from enrolling in the same class
9. The P-TECH/ICIA program shall be offered at no cost to students

# P-TECH/ICIA Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the P-TECH/ICIA website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy

### Products

- a. Mentor/induction program plans
- b. Annual training or professional development plan with P-TECH/ICIA and IHE faculty
- c. P-TECH/ICIA leadership meeting agendas and notes

# P-TECH/ICIA Blueprint

## Benchmark 2: Target Population

The P-TECH/ICIA program shall serve, or include plans to scale up to serve, students in Grades 9 through 14, and shall target and enroll students who are at risk of dropping out of school as defined by the Public Education Information Management System (PEIMS) and who might not otherwise go to college.

### Design Elements

#### All P-TECH/ICIAs must implement and meet the following requirements:

1. The P-TECH/ICIA shall be open enrollment for all students. Recruitment and enrollment processes shall identify, recruit, and enroll subpopulations of at-risk students (as defined by PEIMS), including, but not limited to, students who are of limited English proficiency, students with disabilities, or students who have failed a state administered assessment. Enrollment decisions shall not be based on state assessment scores, discipline history, teacher recommendation, parent or student essays, minimum grade point average (GPA), or other criteria that create barriers for student enrollment.
2. The P-TECH/ICIA shall identify, recruit, and enroll subpopulations (in addition to those who are at risk as defined by PEIMS) that are historically underrepresented in college courses (e.g., first generation college goers, students of low socioeconomic status, African American, Hispanic, Native American)
3. The P-TECH/ICIA shall clearly document recruitment and enrollment policies and practices; refining and improving them annually based on data reviews
4. Recruitment and enrollment processes (including marketing and recruitment plans, materials, and timelines) shall be transparent in program requirements, and include input from key stakeholders (e.g., parents and community members; postsecondary partners); target student populations as described in 1 and 2 above; and include regular activities to educate students, counselors, principals, parents, and school board and community members
5. If the P-TECH/ICIA has more applicants than available space for admissions, they shall use either a performance-blind, open-access lottery system that encourages and considers applications from all students (all students have an equal opportunity for acceptance, regardless of background or academic performance) or a weighted lottery that favors students who are at risk or who are part of the targeted subpopulations for the P-TECH/ICIA

### Required Activities and Products

#### Activities

- a. All products shall be published on the P-TECH/ICIA academy website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy

#### Products

- a. Written admission policy and enrollment application
- b. Written recruitment plan including a timeline of recruitment and enrollment events, and recruitment materials for distribution at feeder schools and other appropriate locations in the community
- c. Brochures and marketing in Spanish, English, and/or other relevant language(s)
- d. Written communication plan for targeting identified audiences, parents, community members, school board, higher education personnel, etc.

# P-TECH/ICIA Blueprint

## Benchmark 3: Strategic Alliances

Strategic partnerships with business and industry partners and IHEs are formally articulated in writing and clearly define a variety of careers.



### Design Elements

**All P-TECH/ICIAs must implement and meet the following requirements based on the pathways to be offered to students i.e. pathways to an associate degree, postsecondary certificate provided by an IHE, or industry certification:**

1. The P-TECH/ICIA shall develop, sign, and execute a memorandum of understanding (MOU) that clearly define the roles and responsibilities of a strong partnership with business and/or industry partners to provide (at a minimum):
  - a. A detailed plan for work-based learning experiences for students appropriate to each grade level, such as facility visits, guest speakers, presentations, career information, job shadowing, internships, externships, and apprenticeships
  - b. Clear roles and responsibilities for worksite supervisors, mentors, teachers, support personnel, and other partners
  - c. Career mentoring with industry/business partner
  - d. Support for students' activities, such as clubs, Career and Technical Student Organizations, competitions, and special initiatives
  - e. Each MOU must include an agreement that the regional industry or business partner will give to a student who receives work based training or education from the partner under the P-TECH/ICIA program priority in interviewing for any jobs for which the student is qualified that are available on the student's completion of the program
  - f. Course path and program monitoring
  - g. The MOU should state clearly the industry certifications that will be acquired and the standards/curriculum that will be followed to achieve stated certifications
  - h. Student access to business and industry partners and work-based learning facilities, services, and resources
  - i. Transportation costs and fees
2. The P-TECH/ICIA shall develop, sign, and execute an articulation agreement with an IHE that includes the following components (at a minimum):
  - a. Curriculum alignment
  - b. Instructional materials
  - c. Courses of study, which enables a student to combine high school courses and college-level courses to earn either an associate degree postsecondary certificate provided by an IHE, or industry certification
  - d. Student enrollment and attendance
  - e. Grading periods and policies
  - f. Administration of statewide assessments under TEC Subchapter B, Chapter 39
  - g. Policies for:
    - i. advising students on the transferability of all college credit offered and earned
    - ii. ensuring the IHE transcripts college credit earned through dual credit in the same semester that credit is earned

# P-TECH/ICIA Blueprint



## Benchmark 3: Strategic Alliances

Strategic partnerships with business and industry partners and IHEs are formally articulated in writing and clearly define a variety of careers.

### Design Elements

- iii. advising students as to the transferability and applicability to baccalaureate degree plans for all college credit offered and earned (college credits earned during high school should allow students to progress from an associate degree to a bachelor's degree and beyond in their chosen field)
  - iv. students accessing to the IHE facilities, services and resources
  - h. Eligibility of students for waivers for tuition & fees
  - i. Data sharing agreement that includes provisions for:
    - i. Teacher data such as qualifications
    - ii. Student level data such as credit hours taken and earned; GPA, formative data to assess if student is on track for college readiness
  - j. Transportation costs and fees
    - i. Provisions for discontinuing operation while ensuring students previously enrolled will have opportunity to complete their course of study
3. Establish an Advisory Board who meets regularly and includes representatives from a variety of stakeholders such as; school board, community, economic development partners, relevant industry subject matter experts for program pathways, and IHE to provide support and guidance to the P-TECH/ICIA in resource acquisition, curriculum development, work-based learning and student/community outreach to ensure a successful academic and career pipeline

# P-TECH/ICIA Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the P-TECH/ICIA website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy
- c. Annual review of industry/business MOU
- d. Annual review of IHE articulation agreement

### Products

- a. Meeting agendas and minutes, with action items and decision logs
- b. Final, signed, and executed MOU with industry partner/business (Campuses must submit their final signed MOU to TEA when initially applying for designation or are provisionally designated)
- c. Final, signed, and executed articulation agreement with IHE (Campuses must submit their final signed MOU to TEA when initially applying for designation or are provisionally designated)
- d. A list of strategic partners with each member's organization, title and role in providing work-based learning for students by grade level

# P-TECH/ICIA Blueprint



## Benchmark 4: Curriculum, Instruction, and Assessment

The P-TECH/ICIA program shall provide a rigorous course of study that enables a participating student to receive a high school diploma, an associate degree, postsecondary certificate provided by an IHE, or industry certification during Grades 9-14.

### Design Elements

#### All P-TECH/ICIAs must implement and meet the following requirements:

1. The P-TECH/ICIA shall work with the local workforce development board, local chamber of commerce, and local workforce industry representatives to identify, create and maintain a list of high-demand occupations and programs of study that lead to these occupations to be used as a resource in creating structured pathways for students and updated as local needs change
2. The P-TECH/ICIA shall establish one or more career pathways, that include industry relevant classes, and plans are underway for sequencing additional courses for students. These course pathways are informed by regional and state workforce and economic development needs and contribute to students earning an associate degree, postsecondary certificate provided by an IHE, or industry certification that prepares them for high-wage, high-demand, high-skill career fields
3. The P-TECH/ICIA shall provide a course of study that enables participating students the opportunity to complete high school graduation requirements, and either an associate degree, postsecondary certificate provided by an IHE, or industry certification on or before the sixth anniversary of the date of the student's first day of high school
  - a. A course of study must be in place detailing how students will progress toward the goal of aligning high school, college-level courses, and industry/business training. This course of study must provide pathways to an associate degree, postsecondary certificate provided by an IHE, or an industry certification. The campus may implement a variety of instructional delivery models
4. The P-TECH/ICIA shall provide an assessment for measuring student progress to ensure students are on track to meet the Outcomes-Based Measures
5. The P-TECH/ICIA shall biannually implement a structured data review process designed to identify student strengths and weaknesses and develop individual instructional support plans
  - a. The P-TECH/ICIA will establish annual assessment measures and provide an opportunity for the industry/business partners to provide feedback on the value of the P-TECH/ICIA program
6. The P-TECH/ICIA shall provide support for students taking courses preparing students to obtain industry certifications, licenses, etc.
6. The P-TECH/ICIA shall work with IHEs and business and industry partners to ensure curriculum alignment between high school, postsecondary and industry experience requirements

# P-TECH/ICIA Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the P-TECH/ICIA website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy

### Products

- a. Four-year crosswalk document
- b. Master Schedule
- c. Curriculum alignment documents
- d. Testing calendar and schedule for TSI, ACT, SAT or other assessments
- e. Documentation detailing a minimum of three course of study examples that outline student pathways from high school, to associate degrees, to work credentials and beyond

# P-TECH/ICIA Blueprint

## Benchmark 5: Work-Based Learning

The P-TECH/ICIA program must offer students a variety of relevant, high-skill work-based learning experiences at every grade level that respond to student interest and regional employer needs and contribute to students earning aligned industry certifications and credentials.

### Design Elements

#### All P-TECH/ICIAs must implement and meet the following requirements:

1. The P-TECH/ICIA shall collaborate with the local workforce development board, local chamber of commerce, and local workforce industry representatives to define local workforce needs
2. The P-TECH/ICIA shall have current, signed MOU with business/industry partners that are reviewed annually and clearly articulate the requirements outlined in this benchmark. The MOU must include in the agreement that the regional industry or business partner will give a student who receives work-based learning **first priority** in interviewing for any jobs for which the student is qualified that are available upon the student's completion of the program
3. The P-TECH/ICIA shall provide:
  - a. Age level appropriate work-based learning for students in the P-TECH/ICIA at every grade level that includes career awareness, career exploration, career preparation, and career experience
  - b. Policies and protocols to make work-based learning a viable method for helping students meet academic standards
  - c. Work based learning experiences that are well-planned and properly sequenced to provide a progression of learning experiences for students—each one building upon the last
  - d. Work based learning may include, but is not limited to: facility visits, guest speakers, presentations, career information, career fairs, informational interviewing, job shadowing, internships, mentoring, and apprenticeships
4. The P-TECH/ICIA shall ensure that students:
  - a. Understand the connection between their work-based learning and academics
  - b. Are provided opportunities to reflect on their work experiences
  - c. Demonstrate their learning in writing, portfolio, presentation, digital or by other means
  - d. Are provided opportunities for career-building skills such as: interview training, skill development, and resume workshops
5. The P-TECH/ICIA shall allow for demonstration of enrichment and extracurricular opportunities, such as clubs, Career and Technical Student Organizations, competitions, and special initiatives

# P-TECH/ICIA Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the P-TECH/ICIA website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy

### Products

- a. Documentation of appropriate work-based learning experiences for students at all grade levels
- b. Current dated regional high demand occupation list
- c. Aggregate data describing student participation in work-based learning experiences as well as percentage of students earning industry certification and credentials by type
- d. Samples of student artifacts such as writings, portfolios, presentations, or links to digital content

# P-TECH/ICIA Blueprint

## Benchmark 6: Student Support

P-TECH/ICIA will provide wrap-around strategies and services involving multiple stakeholders (parents, teachers, counselors, community members, etc.) to strengthen both the academic and technical skills necessary for high school and college readiness, as well as provide academic, technical, and individual support for students to be successful in rigorous academic and work-based learning experiences.

### Design Elements

#### All P-TECH/ICIAs must implement and meet the following requirements:

1. The P-TECH/ICIA shall provide layered academic support to the students by personalizing the learning environment in the following ways:
  - a. Developing individualized, college and career focused student plans with specific graduation plan for ongoing academic support
  - b. Providing academic support for intervention, remediation, and acceleration
  - c. Providing tutoring and/or Saturday school for identified students in need of academic supports
  - d. Providing students with application, financial aid counseling and college/career counseling
  - e. Providing advisory and/or college readiness and support time built into the program of study for all students
  - f. Providing bridge programs (an intensive academic preparation program that provides opportunities to strengthen academic skills necessary for high school, college readiness and career readiness and exploration) and to support student transition from middle school to the P-TECH/ICIA program (as well as elementary to middle school if applicable)
  - g. Establishing an industry mentorship program available to all students; and
2. The P-TECH/ICIA shall provide layered social and emotional support to the students as needed, such as:
  - a. Connections to social services
  - b. Parent outreach and involvement opportunities
  - c. A structured program of community service to promote community involvement; and
  - d. Skill building instruction for students, such as time management, study skills, collaboration and interpersonal relationship skills

# P-TECH/ICIA Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the school website and be made available to TEA upon request
- b. All products shall be maintained in accordance with local retention policy

### Products

- a. Bridge program calendar and curricula
- b. Tutoring and other intervention/remediation program schedules
- c. Calendar of family outreach events
- d. Schedule of regularly scheduled counseling/advisory events and records of completion for these support services

# P-TECH/ICIA Blueprint

## Access Outcomes-Based Measures

*TEA is currently in a phase-in process for the new P-TECH/ICIA Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional	Designated	Designated with Excellence
<b>Requirements</b>	Must meet <b>at-risk</b> students for <b>incoming 9th</b> graders and at least <b>three</b> additional target population data indicators	Must meet <b>at-risk</b> students for <b>incoming 9th graders</b> and at least <b>three</b> additional target population data indicators	Must meet <b>at-risk</b> students for <b>incoming 9th</b> graders and at least <b>four</b> additional target population data indicators
P-TECH/ICIA proportionate to or over- represents at-risk students for incoming 9th graders	No more than 20% points under district	No more than 15% points under district	No more than 10% points under district
P-TECH/ICIA proportionate to or over- represents economically disadvantaged students	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
P-TECH/ICIA proportionate to or over- represents non-traditional CTE participants*	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
P-TECH/ICIA proportionate to or over- represents African American students	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
P-TECH/ICIA proportionate to or over- represents Hispanic students	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
P-TECH/ICIA proportionate to or over- represents ELL and SWDs	Not taken into account for designation	Not taken into account for designation	No more than 5% points under

\* Nontraditional Career-Technical Education (CTE) programs are identified as those connected to occupations or fields of work in which individuals from one gender comprise less than 25 percent of the individuals employed in those occupations or fields of work. The male and female lists are updated annually for Perkins IV.

# P-TECH/ICIA Blueprint

## Attainment Outcomes-Based Measures

*TEA is currently in a phase-in process for the new P-TECH/ICIA Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional	Designated	Designated with Excellence
<b>Requirements</b>	Must meet college-level course and Work-Based Learning requirements	Must meet targets on at least <b>four</b> attainment data indicators	Must meet targets on at least <b>five</b> attainment data indicators
Grade-to-grade persistence by subgroup (weighted)	Not taken into account for designation	Retain 80% of students who remain in district grade-to-grade	Retain 90% of students who remain in district grade-to-grade
Completing one college-level course by end of 11th grade (any)	80% of students (by the fourth year of implementation)	90% of students	100% of students
Earning postsecondary degree provided by an IHE by graduation	Not taken into account for designation	30% of students	50% of students
Earning a postsecondary credential provided by an IHE by graduation	Not taken into account for designation	30% of students	50% of students
Earning industry certification by high school graduation	Not taken into account for designation	30% of students	50% of students
Earning postsecondary degree or postsecondary credential provided by an IHE or industry certificate by high school graduation	Not taken into account for designation	80% of graduating cohort of students	100% of graduating cohort of students
Participating in a Work-Based Learning placement/course by graduation	35% of students (by the fourth year of implementation)	50% of students	85% of students

# P-TECH/ICIA Blueprint

## Achievement Outcomes-Based Measures

*TEA is currently in a phase-in process for the new P-TECH/ICIA Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicator	Provisional	Designated	Designated with Excellence
<b>Requirements</b>	Must meet at least <b>one</b> targets	Must meet at least <b>three</b> achievement data indicators	Must meet at least <b>four</b> achievement data indicators
Meet TSI criteria (SAT/ACT/TSIA) in reading and mathematics	35% passing rate on one or more college readiness benchmarks	50% passing rate on one or more college readiness benchmarks	60% passing rate on one or more college readiness benchmarks
Earn industry certification	Not taken into account for designation	30% of students	50% of students
Earn an associate degree	Not taken into account for designation	30% of students	50% of students
Complete a course for dual credit	35% of students	80% of students	100% of students
Algebra I EOC assessment in 9 <sup>th</sup> grade	Not taken into account for designation	85% of students meeting grade level standard	85% of students meeting grade level and 45% mastering grade level standard
English II EOC assessment (grades 9-11)	Not taken into account for designation	85% of students meeting grade level standard	85% of students passing and 25% of students mastering grade level

# T-STEM Blueprint



## Benchmark 1: School Design

The T-STEM academy must provide a STEM focused program serving students in grades 6-12 or grades 9-12 with an active relationship with the feeder middle school(s).

### Design Elements

#### All T-STEM academies must implement and meet the following requirements:

1. The T-STEM academy location shall be:
  - a. On a college or university campus, or
  - b. In a high school—as a standalone high school campus or in a smaller learning community within a larger high school, or
  - c. At a central location, such as a STEM or CTE center where students are enrolled in their home campus
2. T-STEM academy staff shall include:
  - a. A T-STEM building level leader with authority to make scheduling, hiring, and budget decisions
  - b. Qualified T-STEM academy teachers who work directly with the T-STEM students, which may include adjunct high school faculty capable of teaching college-level courses
  - c. Counseling staff who support T-STEM students, including activities such as: coordinating with Institutions of Higher Education (IHEs) for registration and monitoring of students' high school and college transcripts and monitoring high school and college courses to ensure all requirements are met
3. The T-STEM shall establish a leadership team that includes high-level personnel with decision-making authority who meet regularly and report to each organization. Regularly scheduled meetings must address the following topics:
  - a. Identification of members and the role each member will play in the design, governance, operations, accountability, curriculum development, professional development, outreach, sustainability, and continuous monitoring and improvement of T-STEM
  - b. Assumption of shared responsibility (between the school district, industry partners, and the IHE) for meeting annual outcomes-based measures and providing annual reports to their district and IHE boards, as well as to the public
  - c. Monitoring of progress on meeting the T-STEM Blueprint, including reviewing data to ensure the T-STEM is on-track to meet outcomes-based measures
  - d. Guidance for mid-course corrections as needed
  - e. Identification and implementation of sustainability structures to address and minimize the challenges of staff turnover and potential fluctuations in funding
4. The leadership team shall include and meet regularly—in person and/or virtually—with the leaders from the district, IHE, and business/industry who have decision-making authority:  
**District leaders (may include):**
  - a. Superintendent
  - b. Assistant superintendent of curriculum and instruction, or equivalent position
  - c. T-STEM principal or director

# T-STEM Blueprint



## Benchmark 1: School Design

The T-STEM academy must provide a STEM focused program serving students in grades 6-12 or grades 9-12 with an active relationship with the feeder middle school(s).

### Design Elements

- d. CTE Director
  - e. Department chairs
  - f. School counselors
  - g. Business and industry partners
- IHE leaders (may include):**
- a. College or university president
  - b. Provost
  - c. Department Chairs for core academic disciplines
  - d. T-STEM liaison
- Business/Industry (may include):**
- a. CEO/President
  - b. Education/community outreach specialist
5. Implementation of an annual professional development plan for teachers and staff using research-based instructional strategies that focus on rigor, build college and career readiness, are based on needs assessment of student data, and includes both high school and dual credit teachers. **Professional development may include, but is not limited to:**
- a. A mentoring and induction program for newly hired staff, providing them with the instructional and interpersonal skills and capacities needed for success in a T-STEM
  - b. An externship program to expose teachers, counselors, and/or administrators to STEM content and careers
  - c. Opportunities for teachers to collaborate, plan, and engage in relevant professional development
6. Provision of opportunities for T-STEM teachers to receive extensive training and support through regularly scheduled formative peer observations and collaboration opportunities with feeder pattern focus groups, industry, and IHE partners
7. Offering of inclusive STEM activities both inside and outside the classroom for all students
8. The T-STEM academy students shall be cohorted into core classes to the extent possible; this does not exclude non-T-STEM students from enrolling in the same class
9. The T-STEM academy shall be offered at no cost to students

# T-STEM Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the T-STEM academy website and be made available to TEA upon request.
- b. All products shall be maintained in accordance with local retention policy.

### Products

- a. Annual training and professional development calendar and plan for teachers
- b. Mentor/induction program plans
- c. T-STEM leadership meetings and agenda notes



# T-STEM Blueprint



## Benchmark 3: Strategic Alliances

Strategic partnerships with business and industry partners and Institutions of Higher Education (IHEs) are formally articulated in writing and clearly define a variety of STEM careers.

### Design Elements

#### All T-STEM academies must implement and meet the following requirements:

1. The T-STEM academy shall develop, sign, and execute a Memoranda of Understanding (MOU) with IHE partner(s) to include (at a minimum):
  - a. Courses of study, which enable a student to combine high school courses and college-level courses toward credentials and certifications including associate and/or bachelor's degree
  - b. Policy for advising students on the transferability of all industry certifications and college credit offered and earned
  - c. Policy to ensure the IHE transcripts college credit earned through dual credit in the same semester that credit is earned
  - d. Policy regarding advising students as to the transferability and applicability to baccalaureate degree plans for all college credit offered and earned (college credits earned during high school should allow students to progress from an associate degree to a bachelor's degree and beyond in their chosen field)
  - e. Policies regarding eligibility of T-STEM students for financial assistance from the higher education partner(s), specifically, waivers for tuition and fees
  - f. Data sharing agreement that includes provisions for:
    - Teacher data such as qualifications
    - Student level data such as credit hours and industry certifications taken and earned; GPA, formative data to assess if student is on track to be successful in college level courses
  - g. Administration of statewide instruments under TEC Subchapter B, Chapter 39
  - h. Transportation costs and fees
  - i. Grading periods and policies
  - j. Instructional materials
  - k. Instructional calendar including location of each course that will be offered
  - l. Student enrollment and attendance policies
2. The T-STEM academy shall develop, sign, and execute a MOU that clearly define the roles and responsibilities of a strong partnership with business and/or industry partners to provide:
  - a. A detailed plan for work-based learning experiences for students appropriate to each grade level, such as facility visits, guest speakers, presentations, career information, job shadowing, internships, externships, and apprenticeships
  - b. Clear roles and responsibilities for worksite supervisors, mentors, teachers, support personnel, and other partners
  - c. Career mentoring
  - d. Support for students' activities, such as clubs, Career and Technical Student Organizations, competitions, and special initiatives
  - e. Course path and program monitoring
  - f. T-STEM students access to business and industry partners and work-based learning facilities, services, and resources

# T-STEM Blueprint



## Benchmark 3: Strategic Alliances

Strategic partnerships with business and industry partners and Institutions of Higher Education (IHEs) are formally articulated in writing and clearly define a variety of STEM careers.

### Design Elements

3. The T-STEM Academy shall establish an Advisory Board who meets regularly and includes representatives from a variety of stakeholders such as; school board, community, higher education, business and industry to provide support and guidance to the T-STEM academy in resource acquisition, curriculum development, work-based learning and student/community outreach to ensure a successful academic and career pipeline

### Required Activities and Products

#### Activities

- a. All products shall be published on the T-STEM academy website and be made available to TEA upon request.
- b. All products shall be maintained in accordance with local retention policy.
- c. Annual review of business/industry and IHE MOU.

#### Products

- a. Meeting agendas and minutes, with action items and decision logs
- b. Final, signed, and executed MOU with IHE (Campuses must submit their final signed MOU to TEA when initially applying for designation or are provisionally designated)
- c. Final, signed, and executed MOU with business/industry partner (Campuses must submit their final signed MOU to TEA when initially applying for designation or are provisionally designated)
- d. A list of strategic partners with each member's organization, title and role in providing work-based learning for students by grade level

# T-STEM Blueprint

## Benchmark 4: Curriculum, Instruction, and Assessment

The T-STEM academy shall provide a rigorous course of study that enables students to receive a high school diploma and complete industry certifications, work-based learning experiences, and/or early college credit during grades 9-12.

### Design Elements

#### All T-STEM academies must implement and meet the following requirements:

1. The T-STEM academy shall work with the local workforce development board to identify, create and maintain a list of high-demand occupations and programs of study that lead to these occupations to be used as a resource in creating structured pathways for students and updated as local needs change
2. The T-STEM academy shall establish one or more STEM pathways, and plans are underway for sequencing additional courses for STEM students. Course pathways are informed by regional and state workforce and economic development needs and contribute to students earning credentials and certifications that prepare them for high-wage, high-demand, high-skill STEM fields
3. The T-STEM academy shall provide a course of study that enables participating students the opportunity to complete high school graduation requirements and earn an industry certification or credential in a STEM focused field
  - a. A four-year crosswalk must be in place detailing how students will progress toward this goal including alignment of high school and college level courses. This crosswalk must provide pathways to a certification, an associate degree, and/or a bachelor's degree and must follow the courses and fields of study listed in the Texas Higher Education Coordinating Board (THECB) Lower Division Academic Course Guide Manual (ACGM) and/or the Workforce Education Course Manual (WECM). The campus may implement multiple dual enrollment delivery models such as:
    - College courses taught on the college or high school campus by college faculty
    - College courses taught on the high school campus or college campus by qualified high school faculty
    - College courses taught virtually, via distance/online/blended learning
4. The T-STEM academy shall biannually implement a structured data review process designed to identify student strengths and weaknesses and develop individual instructional support plans
5. The T-STEM academy shall provide a TSI assessment to students as early as possible (but not as a prerequisite to admissions)
  - a. The T-STEM academy shall develop a plan for test preparations for TSI, SAT, and/or ACT success, including academic preparation classes for students, interventions for students who do not pass TSI, and assessment fee waivers for all administrations of the TSI
  - b. The T-STEM academy shall review TSI, SAT, and ACT testing data, particularly the number/percentage of students who have currently passed each section of the TSI assessment, to ensure the T-STEM is on track to meeting outcomes-based measures
6. The T-STEM academy shall provide support for students taking STEM courses preparing students to obtain industry certifications, licenses, etc.
7. The T-STEM academy shall work with IHEs and business and industry partners to ensure curriculum alignment between high school, postsecondary and industry experience requirements

# T-STEM Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the T-STEM academy website and be made available to TEA upon request.
- b. All products shall be maintained in accordance with local retention policy.

### Products

- c. Four-year crosswalk document
- d. Master schedule
- e. Curriculum alignment documents
- f. Testing calendar and schedule for TSI, ACT, and SAT
- g. Documentation detailing a minimum of three course of study examples that outline student pathways from high school, to associate degree, to industry certifications and beyond

# T-STEM Blueprint



## Benchmark 5: Work-Based Learning

The T-STEM academy must offer students a variety of relevant, high-skill work-based learning experiences at every grade level that respond to student interest and regional employer needs contributing to students earning STEM-focused industry certifications and credentials.

### Design Elements

**All T-STEM academies must implement and meet the following requirements:**

1. The T-STEM academy shall collaborate with the Local Workforce Development Board to define local workforce needs in STEM careers
2. The T-STEM academy shall have current, signed MOUs with business/industry partners that are reviewed annually and clearly articulate the requirements outlined in this benchmark
3. The T-STEM academy shall provide:
  - a. Appropriate work-based learning for students in the T-STEM academy at every grade level that includes career awareness, career exploration, career preparation, and career experience
  - b. Policies and protocols to make work-based learning a viable method for helping students meet academic standards
  - c. Work-based learning experiences that are well-planned and properly sequenced to provide a progression of learning experiences for students—each one building upon the last
  - d. Work-based learning may include, but is not limited to: facility visits, guest speakers, presentations, career information, career fairs, informational interviewing, job shadowing, internships, mentoring, and apprenticeships
4. The T-STEM academy ensures that students:
  - a. Understand the connection between their work-based learning and academics
  - b. Are provided opportunities to reflect on their work experiences
  - c. Demonstrate their learning in writing, portfolio, presentation, digital or by other means

### Required Activities and Products

#### Activities

- a. All products shall be published on the T-STEM academy website and be made available to TEA upon request.
- b. All products shall be maintained in accordance with local retention policy.

#### Products

- a. Documentation of appropriate work-based learning experiences available for students at all grade levels (6-12)
- b. Current dated regional high demand STEM occupation list
- c. Aggregate data describing T-STEM student participation in work-based learning experiences as well as percentage of students earning industry certification and credentials by type
- d. Samples of student artifacts such as writings, portfolios, presentations, or links to digital content

# T-STEM Blueprint

## Benchmark 6: Student Support



The T-STEM academy will provide wrap-around strategies and services involving multiple stakeholders (parents, teachers, counselors, community members, etc.) to strengthen both the academic and technical skills necessary for high school and college readiness, as well as provide academic, technical, and individual support for students to be successful in rigorous academic and work-based learning experiences.

### Design Elements

#### All T-STEM academies must implement and meet the following requirements:

1. The T-STEM academy shall provide layered academic support to the students by personalizing the learning environment in the following ways:
  - a. Developing individualized, STEM focused student plans with specific graduation plan for ongoing academic support
  - b. Providing academic support for intervention, remediation, and acceleration
  - c. Providing tutoring and/or Saturday school for identified students in need of academic support
  - d. Providing advisory and/or college readiness and support time built into the program of study for all students
  - e. Providing students with application, financial aid counseling and college/career counseling
  - f. Providing bridge programs (an intensive academic preparation program that provides opportunities to strengthen academic skills necessary for high school and college readiness) and to support student transition from middle school to the T-STEM program (as well as elementary to middle school, if applicable)
  - g. Establishing a mentorship program available to all students
  - h. Providing resources for career support including career exploration, work-based learning, and industry certifications for high-wage, high-demand, high-skill STEM fields
2. The T-STEM academy shall provide layered social and emotional support to the students as needed such as:
  - a. Connections to social services
  - b. Parent outreach and involvement opportunities
  - c. A structured program of community service to promote community involvement
  - d. Skill building instruction for students, such as time management, study skills, collaboration and interpersonal relationship skills
  - e. The T-STEM academy shall provide enrichment and extra-curricular opportunities such as clubs, Career and Technical Student Organizations, competitions, and special initiatives
3. The T-STEM academy shall provide enrichment and extra-curricular opportunities such as clubs, Career and Technical Student Organizations, competitions, and special initiatives

# T-STEM Blueprint

## Required Activities and Products

### Activities

- a. All products shall be published on the T-STEM academy website and be made available to TEA upon request.
- b. All products shall be maintained in accordance with local retention policy.

### Products

- a. Bridge program calendar and curricula
- b. Tutoring and other intervention/remediation program schedules
- c. Calendar of family outreach events
- d. Schedule of regularly scheduled counseling/advisory events and records of completion for these support services

# T-STEM Blueprint

## Access Outcomes-Based Measures

*TEA is currently in a phase-in process for the new T-STEM Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional	Designated	Distinguished
<b>Requirements</b>	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>four</b> additional target population data indicators. Middle schools must meet <b>four</b> measures	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>three</b> additional target population data indicators. Middle schools must meet <b>three</b> measures	Must meet <b>at-risk students for incoming 9th graders</b> and at least <b>four</b> additional target population data indicators. Middle schools must meet <b>four</b> measures
T-STEM academy proportionate to or over-represents <b>at-risk students for incoming 9th graders</b>	No more than 20% points under district	No more than 15% points under district	No more than 10% points under district
T-STEM academy proportionate to or over-represents <b>economically disadvantaged students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
T-STEM academy proportionate to or over-represents <b>African American students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
T-STEM academy proportionate to or over-represents <b>Hispanic students</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
T-STEM academy proportionate to or over-represents <b>females</b>	No more than 10% points under district	No more than 5% points under district	Meets or over-represents district
T-STEM academy proportionate to or over-represents <b>ELL and SWDs</b>	Not taken into account for designation	Not taken into account for designation	No more than 5% points under



# T-STEM Blueprint

## Attainment Outcomes-Based Measures

*TEA is currently in a phase-in process for the new T-STEM Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

Data Indicators	Provisional	Designated	Distinguished
<b>Requirements</b>	Must meet college <b>math</b> or <b>science</b> , and <b>15</b> college credit targets	Must meet targets on at least <b>five</b> attainment data indicators	Must meet targets on at least <b>six</b> attainment data indicators
Grade-to-grade persistence by subgroup (weighted)	Not taken into account for designation	TBD	TBD
Completing one college-level math or science course by end of 12th grade (any)	80% of students (by the fourth year of implementation)	90% of students	100% of students
Participating in a Work-Based Learning placement/course by graduation	35% of STEM focused students (by the fourth year of implementation)	50% of students	75% of students
Earning 15 college credits (any) by graduation	50% of students (by the fourth year of implementation)	80% of students	95% of students
Earning postsecondary degree and/or credential by high school graduation	Not taken into account for designation	30% of students	40% of students
Earning an industry certification by graduation	10% of STEM focused students (by the fourth year of implementation)	20% of students	30% of students
Graduating high school in 4 years (4-year cohort graduation rate)	Not taken into account for designation	Meets the statewide 4-year graduation rate	Exceeds the statewide 4-year graduation rate



# T-STEM Blueprint

## Achievement Outcomes-Based Measures

*TEA is currently in a phase-in process for the new T-STEM Blueprint. These data are for information and planning purposes only. This information will not be used to determine designation status.*

	Provisional	Designated	Distinguished
<b>Data Indicators</b>			
<b>Requirements</b>	Must meet <b>two</b> TSI achievement data indicators	Must meet at least <b>four</b> achievement data indicators	Must meet at least <b>five</b> achievement data indicators
TSI College Readiness Standards in reading	65% passing rate	70% passing rate	75% passing rate
TSI College Readiness Standards in writing	75% passing rate	80% passing rate	85% passing rate
TSI College Readiness Standards in math	50% passing rate	60% passing rate	75% passing rate
Algebra I EOC assessment in 9th grade	Not taken into account for designation	85% of students passing	45% percent of students passing and meeting the advanced standard
College Readiness benchmarks on SAT or ACT	35% passing rate on one or more college readiness benchmarks	40% passing rate on one or more college readiness benchmarks	50% passing rate on one or more college readiness benchmarks



**TEA APPENDIX 7:  
Secondary Perkins V Local Application**

Schedule Status:

<Selection\_Process>

Application ID:

**eGrants Application**  
TEXAS EDUCATION AGENCY  
SAS#: XXXXXXXX

Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Printable Version	Program Description	Save
Table of Contents	PS3012 – Local Application	Instructions

**Part 1: Comprehensive Local Needs Assessment Results**

**A. Summarize the results of the comprehensive local needs assessment.**

Empty text area for summarizing the results of the comprehensive local needs assessment.

2020-2021 Baseline metrics have been reviewed and approved.

**B. How will you use funds to develop and implement evaluations of CTE programs, including evaluations necessary to complete the local needs assessment (One of the six required used of funds).**

Empty text area for describing how funds will be used for evaluations of CTE programs.

**Part 2: Programs of Study Funding**

**A. Check the box next to each of the Statewide Programs of Study you plan to offer in the 2020-2021 academic year.**

<input type="checkbox"/> Accounting & Financial Services	<input type="checkbox"/> Advanced Manufacturing	<input type="checkbox"/> Agribusiness	<input type="checkbox"/> Animal Science	<input type="checkbox"/> Applied Agricultural Engineering
<input type="checkbox"/> Architectural Design	<input type="checkbox"/> Automotive	<input type="checkbox"/> Aviation Maintenance	<input type="checkbox"/> Bio-Medical Science	<input type="checkbox"/> Business Management
<input type="checkbox"/> Carpentry	<input type="checkbox"/> Construction MGT and Inspection	<input type="checkbox"/> Culinary Arts	<input type="checkbox"/> Cybersecurity	<input type="checkbox"/> Diesel and Heavy Equipment
<input type="checkbox"/> Digital Communications	<input type="checkbox"/> Distribution and Logistics	<input type="checkbox"/> Early Learning	<input type="checkbox"/> Electrical	<input type="checkbox"/> Emergency Services
<input type="checkbox"/> Engineering	<input type="checkbox"/> Entrepreneurship	<input type="checkbox"/> Environmental/Natural Resources	<input type="checkbox"/> Exercise Science and Wellness	<input type="checkbox"/> Family and Community Services
<input type="checkbox"/> Food Science and Technology	<input type="checkbox"/> Government/Public Administration	<input type="checkbox"/> Graphic Design & Multimedia Arts	<input type="checkbox"/> Health and Wellness	<input type="checkbox"/> Health Informatics
<input type="checkbox"/> Healthcare Diagnostics	<input type="checkbox"/> Healthcare Therapeutic	<input type="checkbox"/> HVAC and Sheet Metal	<input type="checkbox"/> Information Technology Support	<input type="checkbox"/> Law Enforcement
<input type="checkbox"/> Legal Studies	<input type="checkbox"/> Lodging and Resort Management	<input type="checkbox"/> Manufacturing Technology	<input type="checkbox"/> Marketing and Sales	<input type="checkbox"/> Masonry
<input type="checkbox"/> Medical Therapist	<input type="checkbox"/> Networking Systems	<input type="checkbox"/> Nursing	<input type="checkbox"/> Oil/Gas Exploration & Production	<input type="checkbox"/> Plant Science
<input type="checkbox"/> Plumbing and Pipefitting	<input type="checkbox"/> Programming & Software Dev.	<input type="checkbox"/> Refining and Chemical Processes	<input type="checkbox"/> Renewable Energy	<input type="checkbox"/> Teaching and Training
<input type="checkbox"/> Travel, Tourism, and Attractions	<input type="checkbox"/> Web Development	<input type="checkbox"/> Welding		

**B. Enter any approved Regional Programs of Study the LEA plans to offer in the 2020-2021 academic year.**

<input type="checkbox"/> Other (Specify):	<input type="checkbox"/> Other (Specify):
<input type="checkbox"/> Other (Specify):	<input type="checkbox"/> Other (Specify):

**C. Provide information on the programs of study and activities the LEA will support with Perkins funds.**

Empty text area for providing information on programs of study and activities supported with Perkins funds.

**D. How did the results of the comprehensive local needs assessment inform the selection of the programs of study and activities to be funded.**

Empty text area for explaining how the results of the comprehensive local needs assessment informed the selection of programs of study and activities to be funded.

**E. Describe how students will learn about CTE course offerings through programs of study, including students who are members of special populations (reference answers provided in Part 5: Improving Equity and Access of the Perkins Needs Assessment).**

Empty text area for describing how students will learn about CTE course offerings through programs of study, including students who are members of special populations.

 <b>SAS#: XXXXXXXX</b>	<b>Organization:</b> <b>Campus/Site:</b> <b>Vendor ID:</b>	<b>County District:</b> <b>ESC Region:</b> <b>School Year:</b>
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<b>&lt;Name of Grant Program&gt;</b>
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<b>Printable Version</b>	<b>Program Description</b>	<b>Save</b>
<b>Table of Contents</b>	<b>PS3012 – Local Application</b>	<b>Instructions</b>

<b>F. Provide within CTE the skills necessary to pursue careers in high skill, high-wage, and in-demand industry sectors or occupations (One of the six required local uses of funds). Check all that apply to your LEA.</b>
--

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | Our programs of study are selected from the Statewide or regionally approved list.  |
| <input type="checkbox"/> | Our LEA offers multiple career preparation learning opportunities for our students.   |
| <input type="checkbox"/> | Our LEA has instructional partnerships with business and industry to provide relevant experiences for students.   |
| <input type="checkbox"/> | Our Business and industry partners regularly provide us with input to ensure that our students receive strong experience in and understanding of all aspects of their industries. |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>  |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>  |

<b>Part 3: Career Exploration, Guidance, and Counseling Provided to All Students in the LEA</b>
---

<b>A. Describe how career guidance and academic counseling will be provided to students before enrolling and while participating in CTE programs of study.</b>
--

<b>B. Provide career exploration and career development activities to students (One of the six required local uses of funds). Check all that apply to your LEA.</b>
---

- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Introductory courses or activities focused on career exploration and career awareness, including non-traditional fields are available to students. |
| <input type="checkbox"/> | Labor market and career information is readily available for students to access.   |
| <input type="checkbox"/> | Graduation and career plans are developed for each CTE student.  |
| <input type="checkbox"/> | Career guidance and academic counselors are available to provide information on postsecondary education and career options.                        |
| <input type="checkbox"/> | Students receive a comprehensive understanding of all aspects of an industry.  |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>   |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>   |

<b>Part 4: Improve Academic and Technical Skills of CTE Students</b>
--

<b>A. Describe how the LEA will encourage career and technical education students at the secondary level to enroll in rigorous and challenging courses in the core academic subjects (reference response provided in question 3.3 in the Local Needs Assessment).</b>
---

<b>B. Support the integration of academic skills into CTE programs of study (One of the six required local uses of funds). Check all that apply to your LEA.</b>
--

- |                          |   |
|--------------------------|---|
| <input type="checkbox"/> | CTE participants, concentrators, and completers have access to challenging academic standards and coursework.   |
| <input type="checkbox"/> | Our teachers, faculty, administrators, and career guidance and academic counselors participate in professional learning to integrate CTE and academic curriculum. |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>  |
| <input type="checkbox"/> | Other: <input style="width:90%;" type="text"/>  |

 <b>SAS#: XXXXXXXX</b>	<b>Organization:</b> <b>Campus/Site:</b> <b>Vendor ID:</b>	<b>County District:</b> <b>ESC Region:</b> <b>School Year:</b>
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**<Name of Grant Program>**

<b>Printable Version</b>	<b>Program Description</b>	<b>Save</b>
<b>Table of Contents</b>	<b>PS3012 – Local Application</b>	<b>Instructions</b>

**Part 5: Special Population and Non-Traditional Fields (Consider responses in Part 5 of the Local Needs Assessment)**

**A. Describe activities that will prepare special populations for high-skill, high-wage, and in-demand occupations (reference answers provided in Part 5: Improving Equity and Access of the Local Needs Assessment).**

**B. Describe how special populations will be provided with equal access to CTE programs of study and how the LEA will ensure discrimination will not occur on the basis of their status as a member of special populations.**

**C. Select activities utilized to promote preparation of students for nontraditional fields. Check all that apply to your LEA.**

- Provision of Recruitment Materials
- Presentations by Counselors or Teachers
- Presentations by Individuals in Nontraditional Fields
- Professional Development Activities
- Other (Specify):
- Other (Specify):
- Other (Specify):
- Other (Specify):

**Part 6: Work-Based Learning Opportunities**

**A. Describe how the LEA will work with employers to develop or expand work-based learning opportunities for CTE students.**

**B. Select the type of work-based learning opportunities provided to CTE students in the LEA. Check all that apply to your LEA.**

- Job shadowing
- Internships
- Apprenticeships
- Simulated Workplace
- Career Preparation Courses
- CTSO Competitions
- Other (Specify):
- Other (Specify):
- Other (Specify):

**Part 7: Postsecondary Credit**

**A. Select the opportunities available for CTE students to earn postsecondary credit. Check all that apply to your LEA.**

- Dual Credit or concurrent enrollment
- Articulation agreements

 <b>SAS#: XXXXXXXX</b>	<b>Organization:</b> <b>Campus/Site:</b> <b>Vendor ID:</b>	<b>County District:</b> <b>ESC Region:</b> <b>School Year:</b>
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<b>&lt;Name of Grant Program&gt;</b>
--------------------------------------

<b>Printable Version</b>	<b>Program Description</b>	<b>Save</b>
<b>Table of Contents</b>	<b>PS3012 – Local Application</b>	<b>Instructions</b>

<input type="checkbox"/>	Advanced Placement (AP)
<input type="checkbox"/>	Early College High School (ECHS)
<input type="checkbox"/>	Pathways to Technology (P-Tech) model
<input type="checkbox"/>	T-STEM model
<input type="checkbox"/>	International Baccalaureate (IB)

<b>Part 8: Recruitment, Retention, and Training (Consider responses in Part 4 of the Local Needs Assessment)</b>
--

<b>A. Describe how the LEA will offer professional development to CTE faculty, staff, and administrators in order to provide high quality instruction to CTE students (reference response provided in question 4.1 of the Local Needs Assessment).</b>
--

<b>B. Describe how the LEA will support the recruitment and retention of CTE educators (reference response provided in question 4.2 of the Local Needs Assessment).</b>
---

<b>C. Provide professional development to CTE Educators (One of the six required local uses of funds). Check all that apply to your LEA.</b>
--

<input type="checkbox"/>	Supporting individualize academic and CTE instructional approaches including the integration of academic and CTE standards.
<input type="checkbox"/>	Training ensuring labor market information is used to inform CTE programs of study.
<input type="checkbox"/>	Faculty is provided training on the latest workplace equipment, technologies, standards, and credentials.
<input type="checkbox"/>	School leaders and administrators receive training on effective management of CTE programs in their schools.
<input type="checkbox"/>	Other: <input style="width:80%;" type="text"/>
<input type="checkbox"/>	Other: <input style="width:80%;" type="text"/>

<b>Part 9: Performance Gaps</b>
---------------------------------

<b>A. Identify and quantify any disparities or gaps in performance on State determined level of performance between any subgroup or special population and the performance of all CTE concentrators served by the LEA (reference responses provided in Part 1: Student Performance of the Local Needs Assessment).</b>
--

<b>B. Plan and carry out elements that support the implementation of CTE programs of study and that result in increasing student achievement on performance indicators (One of the six required local uses of funds). Check all that apply to your LEA.</b>
---

<input type="checkbox"/>	Curriculum aligned with the requirements for a program of study.
<input type="checkbox"/>	Our LEA has effective business and industry partnerships that support student learning.

<b>Schedule Status:</b>		<b>&lt;Selection_Process&gt;</b>		<b>Application ID:</b>	
		<b>Organization:</b> <b>Campus/Site:</b> <b>Vendor ID:</b>		<b>County District:</b> <b>ESC Region:</b> <b>School Year:</b>	
<b>SAS#: XXXXXXXX</b>		<b>&lt;Name of Grant Program&gt;</b>			
<b>Printable Version</b>		<b>Program Description</b>		<b>Save</b>	
<b>Table of Contents</b>		<b>PS3012 – Local Application</b>		<b>Instructions</b>	
<input type="checkbox"/>	Our LEA provides opportunities for CTE concentrators to participate in dual or concurrent enrollment programs, early college high schools, and take courses with articulation agreements with our community college as part of a program of study.				
<input type="checkbox"/>	Our programs of study use appropriate equipment, technology, and instructional materials aligned with business and industry needs.				
<input type="checkbox"/>	Industry-recognized certification examinations are provided to students within our programs of study.				
<input type="checkbox"/>	Other:				
<input type="checkbox"/>	Other:				

<a href="#">Table of Contents</a>	<a href="#">Printable Version</a>	<a href="#">Save</a>
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	Organization:	County District:
	Campus/Site:	ESC Region:
	Vendor ID:	School Year:

SAS#: XXXXXXXX

<Name of Grant Program>

<a href="#">Printable Version</a>	<b>Program Description</b>	<a href="#">Save</a>
<a href="#">Table of Contents</a>	<b>PS3350 – Accountability</b>	<a href="#">Instructions</a>

Fiscal Agent / Member / Individual Applicant

<CDN – Org Name>

**Part 1: Perkins Performance Measures** (See the TEASE application CTER [Career and Technology Education Reports] for performance measure/core indicator definitions, described after each performance table.)

Actual for <YYYY-YYYY>	Actual for <YYYY-YYYY>	Actual for <YYYY-YYYY>	Statewide Target %	Local Target %	Explain why the Local Target percentage was less than the Statewide Target percentage.	Describe strategies the LEA will use to improve CTE student performance.
<Config>						
1S1: Four- Year Graduation Rate						
<Config>						
1S2: Extended Graduation rate						
<Config>						
2S1: Academic Proficiency in Reading/Lang uage Arts						
<Config>						
2S2: Academic Proficiency in Mathematics						
<Config>						
2S3; Academic Proficiency in Science						
<Config>						
3S1: Postsecondary Placement						
<Config>						
4S1: Non- traditional Program Enrollment						
<Config>						
5S1: Attained recognized Postsecondary Credential						
<Config>						
5S4: Program Quality CTE Completer						

Schedule Status:		<Selection_Process>		Application ID:		
		<b>Organization:</b> <b>Campus/Site:</b> <b>Vendor ID:</b>		<b>County District:</b> <b>ESC Region:</b> <b>School Year:</b>		
SAS#: XXXXXXXX						
<Name of Grant Program>						
Printable Version		Program Budget		Save		
Table of Contents		BS6003 - Program Budget Summary and Support		Instructions		
Statutory Authority				Fund Code FAR/SSA		
Part 1: Available Funding						
Final Amount				View List of Members		
Reallocation						
Grand Total						
				Total Funds Available		
Part 2: Budget Summary by Class/Object Code						
Class/Object Code and Description				Program Costs	Admin Costs	Total Budget
6100	Payroll Costs					
6200	Professional and Contracted Services (itemized in Part 5)					
6300	Supplies and Materials (itemized in Part 6)					
6400	Other Operating Costs (itemized in Part 7)					
6500	Debt Service (itemized in Part 8)					
6600	Capital Outlay (itemized in Part 9)					
8911	Operating Transfers Out					
Subtotal						
<b>Maximum Allowable Indirect Costs:</b>				Total Direct Costs		
				% Indirect Costs		Help
Grand Total						
				Total Budgeted Costs:		
Shared Services Arrangements						
6493	Payments to Member Districts of Shared Services Arrangements					
Mutually Beneficial Purposes and Programs That Will Be Provided to ALL Members of the SSA						
<input type="checkbox"/>	Employ Certified Counselors to Provide Career Development, Guidance, and Academic Counseling Programs to All Students within the SSA					
<input type="checkbox"/>	Employ a Full- or Part-Time Special Populations Coordinator to Work Directly with Members of Special Populations to Ensure Services and/or Job-Specific Training for Such Students on the Campus of Each Member of the SSA					
<input type="checkbox"/>	Establish a Common Site for Offering Career and Technical Education (CTE) Courses to Members of the SSA					
<input type="checkbox"/>	Other:					
<input type="checkbox"/>	Other:					
Assurance : By checking the statements below, I certify my acceptance and compliance with Perkins regulations						
<input type="checkbox"/>	The fiscal agent assures that all Perkins funds awarded through this application will be used for purposes or programs that are mutually beneficial to all members of the SSA, and that evidence of mutual benefit can be provided if requested by the Agency or auditors.					
<input type="checkbox"/>	The fiscal agent assures that it has processes in place that prevent funds paid to SSA members from being used for any purpose or program that benefits only one member of the SSA.					

	Organization:	County District:
	Campus/Site:	ESC Region:
	Vendor ID:	School Year:

SAS#: XXXXXXXX

<Name of Grant Program>

Printable Version	Program Budget	Save
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Table of Contents	BS6003 - Program Budget Summary and Support	Instructions
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**Part 3: Waiver from the Minimum \$15,000 Requirement**

**Rural Sparsely Populated Area:**  
 The number of highway miles from the high school that is the nearest neighbor is at least 30, and the school is unable to enter into a consortium for providing programs, services, and/or activities authorized under secondary school Career and Technology

Number of Highway Miles from the High School:	Name of High Schools:
---	-----------------------

**Approved Charter School That Is Unable to Join an SSA**

If either box above is checked, describe why the LEA is unable to join a shared services arrangement:

**Part 4: 6100 - Itemized Payroll Costs**

**Number of Positions**

#	Position Title	Number of Program Positions	Number of Admin Positions
1.	Administrators [012] (6119)		
2.	Aides [033] (6129)		
3.	Career Coordinators [058/080] (6119)		
4.	Clerical Staff (6129)		
5.	Counselors [008] (6119)		
6.	Program Coordinator (6119/6129)		
7.	Special Populations Coordinators (6119/6129)		
8.	Supervisors [080] (6119)		
9.	Support Center Staff (6119/6129)		
10.	Other:		
11.	Other:		
12.	Other:		
13.	Other:		
14.	Other:		
15.	Other:		
16.	Other:		
17.	Other:		
18.	Other:		
19.	Other:		
20.	Other:		
21.	Other:		
22.	Other:		
23.	Other:		
24.	Other:		
25.	Other:		

**Substitute, Extra-Duty, Benefits**

1.	For Schoolwide Personnel Not Coded 8911	<input type="checkbox"/>	<input type="checkbox"/>
2.	Extra-Duty Pay/Beyond Normal Work Hours for Positions Not Indicated Above	<input type="checkbox"/>	<input type="checkbox"/>
3.	Substitutes for Public and Charter School Personnel for Positions Not Indicated Above	<input type="checkbox"/>	<input type="checkbox"/>

<b>Schedule Status:</b>		<b>&lt;Selection_Process&gt;</b>		<b>Application ID:</b>		
		<b>Organization:</b>		<b>County District:</b>		
		<b>Campus/Site:</b>		<b>ESC Region:</b>		
		<b>Vendor ID:</b>		<b>School Year:</b>		
<b>SAS#: XXXXXXXX</b>						
<b>&lt;Name of Grant Program&gt;</b>						
<b>Printable Version</b>		<b>Program Budget</b>			<b>Save</b>	
<b>Table of Contents</b>		<b>BS6003 - Program Budget Summary and Support</b>			<b>Instructions</b>	
<b>Part 5: 6200 – Itemized Professional and Contracted Services Costs</b>						
#	Class/Object Code and Description	Program Costs	Admin Costs			
1.	6219/ 6239/ 6291 Professional and Consulting Services					
2.	6269 Rental or Lease of Buildings, Space in Buildings, or Land					
3.	6220 Postsecondary CTE tuition for students, for tuition in excess of the amount of ADA funds generated by those students. Allowable only when tuition payments are for groups of students and not in the name of individuals.					
<b>Subtotal</b>						
Remaining 6200 - Professional and Contracted Services That Do Not Require Specific Approval						
Total Professional and Contracted Services Costs						
<b>Part 6: 6300 – Itemized Supplies and Materials Costs</b>						
Total Supplies and Materials Costs						
<b>Part 7: 6400 – Itemized Other Operating Costs</b>						
#	Class/Object Code and Description	Program Costs	Admin Costs			
1.	6411 Out-of-State Travel for Employees. Must be allowable per Program Guidelines. LEA must keep documentation locally.					
2.	6412/ 6494 Educational Field Trip(s). Must be allowable per Program Guidelines. LEA must keep documentation locally.					
3.	6413 Stipends for Non-Employees other than those included in 6419.					
4.	6419 Non-Employee Costs for Conferences. Requires authorization in writing.					
<b>Subtotal</b>						
Remaining 6400 - Other Operating Costs That Do Not Require Specific Approval						
Total Other Operating Costs						

**eGrants Application** Organization: County District:  
 TEXAS EDUCATION AGENCY Campus/Site: ESC Region:  
 SAS#: XXXXXXXX Vendor ID: School Year:

<Name of Grant Program>

Printable Version Save

Table of Contents Instructions

**BS6003 - Program Budget Summary and Support**

**Part 8: 6500 - Itemized Debt Service**

#	Property Description				Class/Object Code and		Program Costs	Admin Costs
1.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				
2.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				
3.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				
4.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				
5.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				
6.					6512	Capital Lease-Principal		
					6522	Capital Lease-Interest		
					6523	Interest on Debt		
	9-Digit Campus #	Property Value	Contract Dates		Subtotal			
			Begin Date	End Date				

**Total Costs** Total Debt Service Costs

--	--	--	--	--	--

**eGrants Application** Organization: County District:  
 TEXAS EDUCATION AGENCY Campus/Site: ESC Region:  
 SAS#: XXXXXXXX Vendor ID: School Year:

<Name of Grant Program>

<b>Printable Version</b>	<b>Program Budget</b>	<b>Save</b>
<b>Table of Contents</b>	<b>BS6003 - Program Budget Summary and Support</b>	<b>Instructions</b>

**Part 9: 6600 – Itemized Capital Outlay**

Description of Capital Expenditures for Additions, Improvements, or Modifications to Capital Assets Which Materially Increase Their Value or Useful Life (not ordinary repairs and maintenance)

	Program Costs	Admin Costs

**Equipment and Other Capital Outlay - Regardless of Unit Cost**

#	Generic Item	PEIMS Code	Quantity	Program Costs	Admin Costs
1					
2					
3					
4					
5					

**Total Costs**

	Total Capital Outlay Costs	
--	----------------------------	--

Describe how the capital outlay requested will be used to accomplish the objectives of the project if different from the general uses described in the instructions.

**eGrants Application** Organization: County District:  
 TEXAS EDUCATION AGENCY Campus/Site: ESC Region:  
 SAS#: XXXXXXXX Vendor ID: School Year:

<Name of Grant Program>

Printable Version Program Budget Save

Table of Contents BS6003 - Program Budget Summary and Support Instructions

**Part 10: Local Uses of Funds**

**Use of Perkins Funds (Program Costs Plus Administration Costs)**

#	Local Uses of Perkins Funds	Payroll (6100)	Prof. & Contr. Services (6200)	Supplies and Materials (6300)	Other Operating Costs (6400)	Debt Services (6500)	Capital Outlay (6600)	Subtotals	%
1.	Career exploration and career development activities								
2.	Provide professional development								
3.	Provide skills necessary to pursue careers in high-skill, high-wage, in-demand occupations								
4.	Integration of academic skills into CTE programs of study								
5.	Support implementation of programs of study								
6.	Evaluate Perkins-funded programs including CLNA								

**Subtotals (Total percentage may not equal 100% due to rounding.)**

							Indirect Costs		
							Total Budgeted Costs		

**Use of State & Local Funds**

#	Required Use of State & Local Funds	Payroll (6100)	Prof. & Contr. Services (6200)	Supplies and Materials (6300)	Other Operating Costs (6400)	Debt Services (6500)	Capital Outlay (6600)	Subtotals	%
1.	Career exploration and career development activities								
2.	Provide professional development								
3.	Provide skills necessary to pursue careers in high-skill, high-wage, in-demand occupations								
4.	Integration of academic skills into CTE programs of study								
5.	Support implementation of								
6.	Evaluate Perkins-funded Programs including CLNA								

**Subtotals (Total percentage may not equal 100% due to rounding.)**

<b>Grand Total (Excluding Indirect Costs)</b>									

 <p>SAS#: XXXXXXXX</p>	Organization:	County District:
	Campus/Site:	ESC Region:
	Vendor ID:	School Year:

<Name of Grant Program>

Printable Version	<b>Program Budget</b>	Save
Table of Contents	<b>BS6003 - Program Budget Summary and Support</b>	Instructions

**Part 12: Pooling of Perkins Funds (SSAs Not Eligible)**

<input type="radio"/> Funds will not be pooled	<input type="radio"/> Funds will be pooled
What amount of funds will be pooled?	
List County/District Numbers for LEAs That Will Pool Funds:	

**If Two or More Districts Will Pool Perkins Funds, Indicate Allowable Activities to Be Funded:**

- Improving the Initial Preparation and Professional Development of CTE Teachers, Faculty, Administrators, and Counselors
- Establishing, Enhancing, or Supporting Systems for Perkins Accountability Data, or Report Perkins Data
- Implementing CTE Programs of Study
- Implementing Industry-based certifications on state accountability list.

**TEA APPENDIX 8:**  
**Secondary Perkins V Comprehensive Local Needs Assessment**



Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>

<Schedule Name>

**Purpose**

One of the most significant changes introduced in the Strengthening Career and Technical Education for the 21st Century Act (Perkins V) is the new comprehensive local needs assessment (CLNA).

The law states, "To be eligible to receive financial assistance under this part, an eligible recipient shall— (A) conduct a comprehensive local needs assessment related to career and technical education and include the results of the needs assessment in the local application submitted under subsection (a); and (B) not less than once every 2 years, update such comprehensive local needs assessment."

ESC and TEA Review

ESC Review Complete

TEA Review Status: <Pending>

**Part 1: Application Designation**

**Intention to Apply for Funds**

Funding Source	Apply on Own	Apply as Fiscal Agent of SSA	Not Apply at All	Apply as Member of SSA
1. <grant description from TEA Calendar>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**Part 2: Student Performance**

**Evaluate student performance on federal accountability indicators.**

1. Identify the Perkins performance accountability indicator targets not being met at the LEA level.

- |   |   |
|---|---|
| <input type="checkbox"/> 1S1: Four-Year Graduation Rate                     | <input type="checkbox"/> 3S1: Postsecondary Placement   |
| <input type="checkbox"/> 1S2: Extended Graduation Rate                      | <input type="checkbox"/> 4S1: Non-traditional Program Enrollment  |
| <input type="checkbox"/> 2S1: Academic Proficiency in Reading/Language Arts | <input type="checkbox"/> 5S1: Attained Recognized Postsecondary Credential  |
| <input type="checkbox"/> 2S2: Academic Proficiency in Mathematics           | <input type="checkbox"/> 5S4: CTE Completer   |
| <input type="checkbox"/> 2S3: Academic Proficiency in Science               | <input type="checkbox"/> All Perkins performance accountability indicator targets have been met at the LEA level. |

2.  2020-2021 LEA baseline data and state baseline data have been reviewed in TEAL and LEA will include strategies for improvement in the local application that address areas of low performance.

3. Compare the performance of CTE Learners with non-CTE Learners on accountability indicators. Include possible explanations for any differences.

TEA Use Only

CTE Review:  Accept  Reject

4. Compare the performance of each special population in the CTE program with the performance of all CTE Learners at the LEA level.

TEA Use Only

CTE Review:  Accept  Reject

Back

Printable Version

Save



Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>  
<Schedule Name>

### Part 2: Student Performance (continued)

Evaluate student performance on federal accountability indicators.

5. Describe how CTE Learners from different genders, races, and ethnicities are performing in the CTE programs at the LEA level.

TEA Use Only CTE Review:  Accept  Reject

### Part 3: Labor Market Alignment

Evaluate the alignment between CTE programs offered and the labor market needs.

1. List the top career clusters with occupations that meet the state and/or regional definition of "in-demand" and "high-wage".

TEA Use Only CTE Review:  Accept  Reject

2. Describe the alignment between the CTE Learners and the occupations identified in part 3 line 1. Second, identify any gaps between high-wage/in-demand occupations and CTE program offerings.

TEA Use Only CTE Review:  Accept  Reject

### Part 4: Programs of Study/Size, Scope, and Quality

Evaluate the core elements required for a state-approved program of study as well as meet the state's definition of size, scope and quality.

1. Based on the LEA's high school enrollment, describe how the number of programs of study offered align with the number of students who could potentially be served.

TEA Use Only CTE Review:  Accept  Reject

Back

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Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>  
<Schedule Name>

### Part 4: Programs of Study/Size, Scope, and Quality (continued)

Evaluate the core elements required for a state-approved program of study as well as meet the state's definition of size, scope and quality.

2. Describe the involvement of secondary partners, postsecondary partners and employer/industry partners in the development, implementation, and phasing out/closure of CTE programs of study.

TEA Use Only CTE Review:  Accept  Reject

3. Identify any gap areas between opportunities for students to participate in work-based learning and complete advanced academic courses compared to your enrollment.

TEA Use Only CTE Review:  Accept  Reject

### Part 5: Recruitment, Retention, and Training of CTE Educators

Assess and develop plans to improve the quality of CTE faculty.

1. Describe professional development opportunities for faculty, staff, counselors, and administrators. Include examples of the effectiveness of these experiences at improving student outcomes.

TEA Use Only CTE Review:  Accept  Reject

2. Identify the processes that are in place to induct and retain faculty and staff. Evaluate these processes for effectiveness with an emphasis on individuals coming from industry.

Back

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Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>  
<Schedule Name>

### Part 5: Recruitment, Retention, and Training of CTE Educators (continued)

#### Assess and develop plans to improve the quality of CTE faculty.

TEA Use Only	CTE Review: <input type="radio"/> Accept <input type="radio"/> Reject
3. Evaluate faculty in CTE programs for appropriate credentials with related workplace experience in the program area.	
TEA Use Only	CTE Review: <input type="radio"/> Accept <input type="radio"/> Reject

### Part 6: Improving Equity and Access

#### Evaluate progress in providing equal access to CTE programs.

1. Evaluate student groups taking part in CTE at disproportionate levels, in comparison to the overall student population. Identify which groups are over and underrepresented.	
TEA Use Only	CTE Review: <input type="radio"/> Accept <input type="radio"/> Reject
2. Identify any barriers that prevent certain populations of CTE learners from accessing your programs, such as prerequisites/admission requirements, transportation, and scheduling. Identify the student groups most affected by these barriers.	
TEA Use Only	CTE Review: <input type="radio"/> Accept <input type="radio"/> Reject
3. Describe how and when you recruit students into your CTE programs. List the methods of reaching all students, including students from groups identified as special populations.	
TEA Use Only	CTE Review: <input type="radio"/> Accept <input type="radio"/> Reject

Back

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Schedule Status:

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Application ID: XXXXXXXXXXXXXXXXXXXX



Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>  
<Schedule Name>

### Part 7: Summary

LEAs will merge the analyses outlined above into one set of findings.

1. Describe the LEA's overall mission and vision for CTE programming.

Empty text area for response to question 1.

TEA Use Only

CTE Review:  Accept  Reject

2. List the top (three-five) CTE priorities over the next four-years.

Empty text area for response to question 2.

TEA Use Only

CTE Review:  Accept  Reject

3. List the top three most aligned CTE programs of study based on regional labor market information and the plan for continuing support or expansion of these programs. List the three least aligned CTE programs of study and the plan for transforming or retiring these programs of study.

Empty text area for response to question 3.

TEA Use Only

CTE Review:  Accept  Reject

4. List the LEA's lowest performance indicators and describe strategies to improve student performance.

Empty text area for response to question 4.

TEA Use Only

CTE Review:  Accept  Reject

Back

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Organization:  
Campus/Site:  
Vendor ID:

County District:  
ESC Region:  
School Year:

<Name of Grant Program>

Instructions

<Program Description>  
<Schedule Name>

## Part 8: Certification and Incorporation

### Certification and Incorporation Statement

I hereby certify that the information contained in this Special Collections Report is, to the best of my knowledge, correct and that the organization named above has authorized me as its representative to submit this data. I further certify that any ensuing program and activity will be conducted in accordance with all applicable Federal and State laws and regulations; application guidelines and instructions; provisions, assurances, and certification requirements; and the schedule submitted. It is understood by the applicant that this application constitutes an offer and, if accepted by the Texas Education Agency or renegotiated to acceptance, will form a binding agreement.

#### Authorized Official

Select Contact:



or

Add New Contact

First Name:

Middle Initial:

Last Name:

Title:

Phone:

Ext:

E-Mail:

#### Submitter Information

First Name:

Last Name:

Approval ID:

Submit Date and Time:

Only the legally responsible party may submit this report.

Certify and Submit

Back

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**TEA APPENDIX 9:  
Results Driven Accountability Information and  
Federal Partners in Transition Document**

## Results Driven Accountability Information

The Texas Education Results Driven Accountability (RDA) is a comprehensive evaluation system designed to improve student performance and program effectiveness to support Local Education Agencies (LEAs). The RDA framework is a data-driven system that utilizes performance indicators, data validation indicators, and other indicators of program compliance required by federal law. Specific program areas include: Bilingual Education (BE) and English as a Second Language (ESL), Career and Technical Education (CTE), Every Student Succeeds Act (ESSA), and Special Education (SPED).

LEAs are evaluated in each program area and assigned an overall performance level (PL). The LEA will be assigned a PL0, PL1, PL2, PL3, or PL4 for each indicator and program. The PL is aligned to a specific level of support. Review and Support will provide general supervision and progress monitoring of the Strategic Support Plan (SSP) and link LEAs to technical assistance for program-specific needs. The SSP incorporates data findings, problem statements, and root causes that address areas of low performance and program ineffectiveness for ESSA indicators.

### *Bilingual Education (BE)/English as a Second Language (ESL) Indicators:*

1. BE STAAR 3-8 Passing Rate
2. ESL STAAR 3-8 Passing Rate
3. English Learners (ELs) (Not Served in BE/ESL) STAAR 3-8 passing rate
4. ELs Years After Exit STAAR 3-8 Rate
5. ELs STAAR End of Course (EOC) Passing Rate
6. ELs Annual Dropout Rate (Grades 7-12)
7. ELs Graduation Rate
8. TELPAS Reading Beginning Proficiency Level Rate
9. TELPAS Composite Rating Levels for Students in U.S. Schools Multiple Years

### *Career and Technical Education (CTE) Indicators:*

1. CTE STAAR EOC Passing Rate
2. CTE ELs STAAR EOC Passing Rate
3. CTE Economically Disadvantaged STAAR EOC Passing Rate
4. CTE SPED STAAR EOC Passing Rate
5. CTE Annual Dropout Rate (Grades 9-12)
6. CTE Graduation Rate

### *Every Student Succeeds Act (ESSA) Indicators:*

1. Title I, Part A STAAR 3-8 Passing Rate
2. Title I, Part A STAAR EOC Passing Rate
3. Title I, Part A Annual Dropout Rate (Grades 7-12)
4. Title I, Part A Graduation Rate
5. Migrant STAAR 3-8 Passing Rate
6. Migrant STAAR EOC Passing Rate
7. Migrant Annual Dropout Rate (Grades 7-12)
8. Migrant Graduation Rate
9. Foster Care STAAR 3-8 Passing Rate
10. Foster Care STAAR EOC Passing Rate

## Results Driven Accountability Information

11. Foster Care Annual Dropout Rate (Grades 7-12)
12. Foster Care Graduation Rate
13. Homeless STAAR 3-8 Passing Rate
14. Homeless STAAR EOC Passing Rate
15. Homeless Annual Dropout Rate (Grades 7-12)
16. Homeless Graduation Rate
17. Military STAAR 3-8 Passing Rate
18. Military STAAR EOC Passing Rate
19. Military Annual Dropout Rate (Grades 7-12)
20. Military Graduation Rate

### **Special Education Monitoring**

R&S will provide general monitoring and supervision for special education monitoring. Special Education Determinations are based on two components:

- Federally Required Elements (FRE)
- State Defined Elements (RDA Indicators)

#### *Federally Required Elements (FRE)*

States must consider the following four federally required elements in assigning a Determination level for LEAs:

- Performance on State Performance Plan (SPP) compliance indicators 9, 10, 11, 12, and 13.
- Whether data submitted by LEAs is valid, reliable, and timely;
- Uncorrected noncompliance from other sources (complaints resolution, due process, residential facility monitoring, and monitoring activities); and
- Any audit findings.

#### *Special Education (SPED) Indicators:*

1. SPED STAAR 3-8 Passing Rate
2. SPED Year After Exit STAAR 3-8 Passing Rate
3. SPED STAAR EOC Passing Rate
4. SPED Alternate 2 Overall Participation (No Action Required)
5. SPED Annual Dropout Rate (Grades 7-12)
6. SPED Graduation Rate
7. SPED Regular Early Childhood Program Rate (ages 3-5)
8. SPED Regular Class  $\geq 80\%$  Rate (Ages 6-21)
9. SPED Regular Class  $< 40\%$  Rate (Ages 6-21)
10. SPED Separate Settings Rate (Ages 6-21)
11. SPED Representation (Ages 3-21)
12. SPED OSS and Expulsion  $\leq 10$  Days Rate (Ages 3-21)
13. SPED OSS and Expulsion  $> 10$  Days Rate
14. SPED ISS  $\leq 10$  Days Rate (Ages 3-21)
15. SPED ISS  $> 10$  Days Rate (Ages 3-21)
16. SPED Total Disciplinary Removals Rate (Ages 3-21)

November 2015



## FEDERAL PARTNERS IN TRANSITION

# WHAT TO KNOW ABOUT WORK-BASED LEARNING EXPERIENCES FOR STUDENTS AND YOUTH WITH DISABILITIES<sup>1</sup>

The Federal Partners in Transition (FPT) workgroup presents *What to Know About Work-Based Learning Experiences*. This fact sheet was created to address the compatible outcome goals and policy priorities identified in *The 2020 Youth Transition Plan: A Federal Interagency Strategy* and provides a quick glance of available resources. Please click on the links to learn more about each fact.

## GENERAL AND LEGISLATIVE INFORMATION

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### 1. Work-based learning and why it is important

The [National Collaborative on Workforce and Disability for Youth](#) defines [work-based learning](#) as a “supervised program sponsored by an education or training organization that links knowledge gained at the work site with a planned program of study. [Experiences range in intensity, structure, and scope](#) and include activities as diverse as site visits, job shadowing, paid and unpaid internships, structured on-the-job training, and the more formal work status as apprentice or employee.” [Work-based learning experiences](#) have been shown to be one of the strongest predictors of adult employment success for students and youth with disabilities.

### 2. What to look for in a work-based learning experience and program

A high quality work-based learning program includes the following characteristics:

- a. Clear roles and responsibilities for worksite supervisors, mentors, teachers, support personnel, and other partners;
- b. Training plans that specify learning goals tailored to individual youth with specific outcomes connected to their learning;

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<sup>1</sup> Youth with disabilities is defined differently by various programs and systems, including the contributing agencies. Consequently, a standard definition is not used in this document.

- c. Opportunities for a range of work-based learning experiences, especially those outside traditional youth employing industries such as hospitality and retail;
- d. Assessments to identify skills, interests, and support needs at the worksite;
- e. Reinforcement of work-based learning outside of work; and
- f. Appropriate academic, social, and administrative support for youth, employers, and all involved.

### **3. Service learning is a form of work-based learning**

[Service learning](#) improves employment outcomes for populations that experience significant barriers in the job market, such as individuals who do not have a high school diploma. The [income exclusions](#) available to Supplemental Security Income (SSI) beneficiaries who participate in [AmeriCorps programs](#) and Social Security Disability Insurance (SSDI) beneficiaries in [AmeriCorps VISTA](#) add further appeal. With these employment supports, beneficiaries can gain work-based experiences and skills through participation in service learning programs [without risk of penalty or loss of disability benefits](#).

### **4. WIOA and work-based learning experiences under Vocational Rehabilitation**

The *Workforce Innovation and Opportunity Act (WIOA)* made significant changes to programs authorized under the *Rehabilitation Act of 1973* (Title IV of *WIOA*), particularly to the Vocational Rehabilitation (VR) Services program which provides VR services to individuals with disabilities. Section 113 of the Rehabilitation Act, as amended by *WIOA*, requires that pre-employment transition services, including work-based learning experiences, be made available to students with disabilities in need of such services who are eligible or potentially eligible for VR services. Work-based learning experiences may include in-school or after school opportunities, or experiences outside the traditional school setting (including [internships](#)), that are provided in an integrated environment to the maximum extent possible.

### **5. WIOA youth formula funding and work-based-learning experiences**

[At least 20 percent of local WIOA Title I youth formula funds](#) must be used for work-based learning. Such work-experiences may include summer and year-round employment, pre-apprenticeship, on-the-job training, or internships and job shadowing. Eligible training providers deliver these services in local communities, which can be accessed through local [American Job Centers](#).

[WIOA requires coordination of services](#) to promote career readiness, secondary school completion, entry into postsecondary education, and [postsecondary credentials aligned with in-demand industry sectors](#). Additional allowable activities include entrepreneurial skills training and financial literacy education.

## BENEFITS FOR THE INDIVIDUAL

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### 6. Benefits of work-based learning experiences include:

#### a. Fostering self and career exploration.

In addition to establishing a clear connection between education and work, work-based learning facilitates an [assessment of interests, strengths, and abilities](#) while exploring possible career paths.

#### b. Developing positive work habits and attitudes.

Work-based learning experiences provide the opportunity to strengthen six key [soft skill areas](#) - communication, enthusiasm and attitude, teamwork, networking, problem solving and critical thinking, and professionalism. These types of skills provide a competitive advantage for achieving career goals.

#### c. Assessing abilities and strengths.

Work-based learning experiences provide opportunities for assessing abilities and strengths outside the classroom. Participation in job related tasks provides a chance to explore how to communicate disability-related work support and accommodation needs, if necessary. [Knowing if, how and when to disclose a disability](#) is a necessary part of self-assessment.

#### d. Expanding professional networks.

[Networking](#) can provide access to professionals who have similar interests and possibly provide access to an individual's next employer.

#### e. Becoming better informed to make decisions before accepting a job offer.

Many work-based learning experiences offer rewards and/or compensation. For example, some work-based learning experiences offer a salary. If it is unpaid, the program may offer a stipend and/or housing. Some employers may offer [health insurance](#) when an employee works 40 hours or more a week. Others might offer training and/or certification in an industry of their choice. Weighing the pros and cons can be overwhelming, but it is important to make sure a person's [next move](#) is aligned with their career and [financial goals](#), and ultimately supports their well-being and independence.

## BENEFITS FOR THE COMMUNITY

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### 7. Benefits of work-based learning experiences for State agencies, local service providers, employers, and the local economy may include:

#### a. Making education more relevant.

Work-based learning experiences can be a valuable component of specially designed instruction for students. [Research](#) has found that students in work-based learning programs complete related coursework at high rates and have higher attendance and graduation rates than those not enrolled in such programs.

#### b. Allowing [employers](#) to tap into a pool of skilled workers.

Work-based learning experiences motivate potential employees and future employers to hire job ready individuals, which reduces training costs and improves employee retention. Establishing collaboration among schools and employers leads to a more productive local economy and, ultimately, builds thriving communities.

#### c. Recognizing the shared responsibilities for a successful work experience.

Quality work experiences are especially dependent on all participants' knowledge and fulfillment of their roles in the arrangement for a [work-based learning experience](#). Students must perform job responsibilities, transition specialists must orient students to the workplace, their roles and responsibilities; and employers must provide clear, detailed, and repeated directions to teach skills needed for successful job performance.

#### d. Assisting State agencies to meet requirements of Federal and State laws.

Transition services are provided to students with disabilities under the *Individuals with Disabilities Education Act* (IDEA) and to students and youth with disabilities under the Rehabilitation of 1973, as amended by *WIOA*. These laws are authorized to help meet the needs of students with disabilities and prepare them to obtain direct employment or a career path leading to employment. [Work-based learning experiences](#) may be used by schools and vocational rehabilitation (VR) agencies to help meet requirements for providing pre-employment transition services<sup>2</sup> and transition services under *WIOA*, and transition services under *IDEA*.

#### e. Strengthening community partnerships.

Through partnerships with State agencies, including State educational agencies and State VR agencies, schools, worksites, businesses, families and community organizations, communities can create opportunities to develop transferrable skills to prepare for postsecondary education and employment.

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<sup>2</sup> Under section 113 of the *Rehabilitation Act*, work-based learning experiences are 1 of the 5 required pre-employment transition activities and are only available to students with disabilities.

**8. Work-based learning experiences impact leadership development and genuinely engage people in their communities.**

Beyond the specific benefits to individuals and to the agencies and employers mentioned, [leadership development](#) can foster the voices of youth with disabilities in the decision-making processes that affect them. It improves [soft skills](#), which many employers view as [important to work readiness](#). It also encourages employers and agencies to better coordinate and better engage with all members of their community, helping them to provide better services.

This document was created by the *Federal Partners in Transition* (FPT). FPT is a workgroup with representatives of several federal agencies, including the Department of Education, the Department of Health and Human Services, the Department of Labor, and the Social Security Administration, which are involved in promoting inclusive service delivery for transitioning youth with disabilities from school into postsecondary education, the workforce, and independent living. Additional information about FPT's shared vision, compatible outcomes goals, and policy priorities can be found in [The 2020 Federal Youth Transition Plan: A Federal Interagency Strategy](#). The report is available at: <http://youth.gov/feature-article/federal-partners-transition>.

**THECB APPENDIX 1:  
Statewide Stakeholder Consultation Meetings**

**STAKEHOLDERS ATTENDING REGIONAL PERKINS V STAKEHOLDER MEETINGS (AUG-OCT 2019)**

(Number of individuals)

DATES	HOST COLLEGE	REGION	ADMINISTRATOR S	SUPPORTS SPECIALISTS	EMPLOYERS	STUDENTS/PARENTS	REGIONAL INSTITUTIONS	TOTALS
22-23 Aug	Angelina College	SOUTHEAST	29	6	5	5	11	56
9-Sep	Austin Community College	CENTRAL	37	0	8	1	27	73
11-Sep	Clarendon College	HIGH PLAINS	24	0	20	43	9	96
19-Sep	Tarrant County Community College	METROPLEX	68	54	50	40	32	244
26-Sep	Del Mar College	SOUTH	36	11	17	36	20	120
2-Oct	Midland College	WEST	29	12	20	27	15	103
14-Oct	San Jacinto College District	GULF COAST	60	28	67	123	16	294
17-Oct	Tyler Junior College	UPPER EAST	15	0	7	6	19	47
		<b>TOTALS</b>	298	111	194	281	149	1033

52 of 54 Texas community and technical colleges and districts participated in Perkins V Stakeholder meetings.  
37 stakeholder sessions

**STAKEHOLDERS ATTENDING ONSITE THECB CONSULTATIONS**

(Number of individuals)

Date/Location	Community, State, and Technical College Representatives	Postsecondary State Policy &	Special Populations Organizations & Groups
7-Jun Austin	49		
2-Aug Austin		8	18

**THECB APPENDIX 2:  
Postsecondary Statewide Stakeholder Consultation Outcomes**

## **Takeaways from Stakeholder Consolidated Notes: Potential Actions for THECB, Other CTE-Engaged State Agencies, Colleges, and Collaborations among Them**

### Advance CTE Statewide

- Launch a statewide campaign that utilizes traditional and social media to spotlight CTE's diverse programs and lucrative career alternatives. This includes early and intentional communications and information to promote CTE options with diverse audiences, but particularly parents, students and high school personnel.
- Establish a state-level, multi-agency CTE advancement agenda based on cross-agency collaboration and information sharing. Agencies would coordinate field communications, align state offerings, and facilitate program efficiencies for all workforce sectors and the CTE pipeline from secondary to postsecondary to employment.
- Build relationships between workforce and postsecondary education that are multi-layered and carefully tended, with faculty to employer relationships at the base, as well as more formal structures such as Industry Advisory Boards and central points of contact at campuses.

### Improve Students' CTE Program Experience

- Assure that every CTE program supports students in attaining job-ready academic and technical skills, opportunities for work-based learning, and relevant employability skills.
- Smooth student pathways from secondary to postsecondary CTE through comprehensive counseling and instructor training, flexible scheduling, and program mapping to support better course access for students and better tracking of students as they navigate their CTE options.
- Build awareness and training for all institutional personnel about student support resources on campus and in the community, including referrals for counseling; emergency funding; health services; and food, housing, childcare and transportation supports.

### Support Rapid Response to Local Employer Needs

- Streamline THECB approval of CTE programs and updates to the statewide CTE course database to support more rapid institutional response time to changing employer needs, technology updates, and market shifts.
- Support business and industry consultation at the state level.

## Cross Sector Collaboration

### Views from the Field on Cross Sector Collaboration

- Goals and strategies for creating streamlined CTE pathways are not aligned between sectors. In particular, the velocity of needs and actions are different across sectors.
  1. Employers need colleges to react or respond more quickly. Colleges need employers to tell them what their longer-term training needs are.
  2. Internal and external program approval processes are too lengthy for colleges to respond to workforce sectors' needs in a timely manner.
  3. There is a role for the state in streamlining curriculum and approving changes to make adoption processes move more quickly. Colleges need THECB to approve programs more quickly.
- There are programmatic disconnects on pathways from secondary to postsecondary and postsecondary to workforce.
  1. Secondary certifications and programs of study do not easily map onto postsecondary curricula (tenuous course content connection to college-level courses; credits/credentials may not transfer; technology may not be appropriate and instructors may not be adequately credentialed, which makes dual credit is challenging; financial aid implications).
  2. CTE programs often may not mirror current industry standards for employment (technology, training, soft skills, real-world exposure).
- There is a need to intentionally build multi-layered, informal and formal collaborative mechanisms to support cross sector relationships.
  1. Multiple engagements are needed: advisory boards, job fairs, site visits, work-based learning, etc.
  2. Relationships should cross various sectors and should include leadership from those various sectors.
  3. Regional collaboration addressing workforce needs should be considered, particularly in larger geographical service areas.
- Communication at all levels needs improvement. Collaboration is hindered by sectoral differences in language and terminology.
  1. Lack of shared language and understanding complicates coming up with responses to the different needs of students, workforce and institutions.
- Scaling work-based learning is necessary to build richer instructional experiences and mirror workforce realities for students.
  1. Collaboration between sectors can be leveraged through internships and apprenticeships
  2. Regional collaboration for work-based learning opportunities has some potential.
- Marketing and messaging – awareness raising and information sharing -- about CTE will be required to remove misperceptions and stigma.
  1. Need more exposure of the value of CTE programs in high schools and the community through intentional and multi-platform outreach.
  2. Messaging should address the value of CTE programs and correct misconceptions about CTE.

3. Efforts are need to be strategic and intentional both at an institutional level and state level.

### **Issues Raised by Stakeholders about Cross Sector Collaboration**

#### Employers

- Communication.
- Pathways from high schools through entering employment.
- Marketing.
- Centralized point of contact for employers.
- Alignment of timelines between businesses and institutions.

#### Regional Institutions

- Communication.
- Pathway of secondary to postsecondary.
- Marketing.
- Internal institutional partnerships to enhance collaboration and student success i.e. adult ed., CTE. Assist with transferability within educational programs.

#### Student Support Employees

- More engagement with employers.
- Communication- no silos.
- Pathways with high schools.
- Marketing and CTE outreach/inclusion.

#### Students/Parents

- N/A

#### CTE Faculty/Administration

- Quality of instruction in high school CTE.
- Marketing.
- Communication at all levels i.e. state-level, local level, workforce boards, ISD's.
- Hiring instructors with industry expertise.

## Program Improvement

### Views from the Field on Program Improvement

- There are a number of improvement drivers pertinent to curricular and administrative CTE programs.
  - Curriculum & Training Quality
    1. Technical and employability skills are good measures of program quality.
    2. There is a need for greater incorporation of employability skills in CTE programs.
      - Students need to be presented with employment opportunities, recruitment and face time with employers.
    3. Equipment and curriculum need to be aligned with employers' needs and up-to-date.
      - Need more active advisory committee engagement.
      - Difficult to keep equipment up to date.
      - Students cannot afford required equipment/technology.
      - Need to speed up program development and increase program capacity to meet employers' needs.
    4. Opportunities for work-based learning are a good measure of program quality.
      - Programs need internships and other work-based learning as a component of curriculum.
  - Faculty Quality
    1. Credentialed and experienced faculty determine program quality to a great extent.
      - Recruitment and retention of qualified faculty can be difficult for institutions.
    2. Faculty training both professional development and externships improve faculty preparedness.
      - Funding to support ample professional development is needed.
      - Industry partnerships need to be leveraged for externship opportunities for faculty.
  - CTE Marketing & Outreach
    1. CTE-awareness in high school increases student awareness of CTE opportunities.
      - High school attention to counseling, advising and placement in career pathways rather than just on 4-year tracks.
        - CTE advocates from colleges spend time in high schools.
        - Training on the value of CTE for high school counselors.
        - Ample CTE representation at career events like college fairs increases student awareness.
        - High schools help facilitate on-campus college fairs.
        - Institutional attention to contemporary social media and newer modes of communication.
  - CTE Student Success

1. Supportive services reduce and/or eliminate barriers.
  - Funding for services is sometimes limited.
  - Outreach to students does not always fully penetrate the CTE student body.
2. Institutional tracking of success measures beyond completion i.e. industry-based certifications, course and credentialing exam pass rates, job placement and retention, salary level, etc. can enhance student success.
  - Institutions need to track outcomes and promote successful programs beyond program completion to assist with student success.
  - These measures need to be used to assess and calibrate program quality to improve student outcomes.
3. Institutions need to provide clear and flexible program pathways.
  - Block scheduling or other program maps assist students with clearer programmatic pathways.
  - Students need flexible scheduling for increased course access.

### **Issues Raised by Stakeholders about Program Improvement**

#### Employers

- Faster adoption of curriculum changes and new programs.
- Contextualized learning to incorporate math and reading skills.
- Employability skills.
- Training and work-based learning.
- Updated training and equipment.
- Outcome tracking.
- Updated faculty.

#### Regional Institutions

- Quality of instruction.
- Engaged employers.
- Credential obtainment.
- Inclusion of employability skills.
- Upgrade/tightening/smooth CTE pathways.
- Intensive business and industry reviews more than once yearly.
- Coordination of data from various state agencies.
- Self-reporting creates issues.
- Objective metrics; market-based validation of CTE programs.

#### Student Support Employees

- Advisement and support.
- Curriculum- alignment with employers' training needs.
- Closer industry partnerships. Updated technology to meet industry standards.
- Pathways between secondary and postsecondary.

- Need broader partnerships in institutions and community.
- Students need to know expectations sooner i.e. time to degree, cost, etc.
- Disseminate CTE information to larger groups including the public.

#### Students/Parents

- Need for marketing and outreach i.e. programs available, cost, time to completion, etc.
- Consistent communication i.e. mixed messages from college staff to students.
- More instructors needed.
- More opportunities to take courses i.e. more faculty, more course offerings, more availability.
- More exposure to work-based experiences in program and job placement at completion.

#### CTE Faculty/Administration

- Marketing and outreach of CTE programs.
- More funding for current technology and faculty training.
- Objective market validation including certification, employment job retention, and salary.
- Communication between college and workforce partners.
- Preparedness of and assistance for students to succeed in class.

## Access & Equity

### Views from the Field on Access & Equity

- A significant number of community college students face a multitude of barriers to succeeding in college.
  1. Students may be unaware of CTE programs.
  2. Students may not know how to navigate college entry/onboarding.
  3. Students may not know how to access or ask for support services.
  4. Students may lack academic preparedness and college success skills.
  5. Students may have life situations, including financial challenges, that impair their ability to succeed.
- Students may be reluctant to self-identify as a special population student.
  1. The ability to support students may be hindered by the lack of self-identification.
  2. Performance indicators will not be accurate without more accurate counts of special populations.
  3. Providing opportunity to self-identify through admissions processes or campus campaigns may be effective.
- Institutions need to intentionally walk towards the student and not expect students to come to them.
  1. Colleges need to interrogate their assumptions about what students need most and prioritize those needs for action.
  2. Awareness needs to grow at all levels within an institution about available student resources within the institution and in the community.
  3. Professional development/training for faculty and staff is needed to enhance college-wide awareness about student's challenges/available solutions. Awareness and cross-training need to be embedded and "normalized" as a function of institutional life.
  4. Active assessment of the effectiveness of existing programs and supports can increase effectiveness.
  5. Be upfront with students about standards and expectations in programs as well as disqualifiers.
- Employers have a role to play.
  1. Employers are not always aware of the benefit of work-based learning to students which can provide real-world experience and build confidence.
  2. Employers may be reluctant to hire the non-traditional student and need to be encouraged to consider that option.
- High school counselors often do not advise knowledgeably or fairly about postsecondary CTE options.
  1. This requires professional development for high school personnel, which institutions might take responsibility for.
- THECB and TEA need to work more closely together to smooth pathways.
  1. There is a lack of consultation between TEA and THECB concerning the development of CTE curricula, certification, and grant programs.

## **Issues Raised by Stakeholders about Access & Equity**

### Employers

- Aggressive marketing.
- Leverage community resources.
- Address students' basic needs first.
- Financial issues that can be addressed by institutions i.e. out-of-district fees.
- More online opportunities.

### Regional Institutions

- Non-traditional application processes: example of strict allied health admissions processes.
- Re-working counseling and advising.
- Leveraging community resources.
- Student self-identification issues.
- CTE stigma deters access.

### Student Support Employees

- Students' basic needs met first. Customize support.
- Time is an issue. Creative scheduling.
- Need to identify special populations CTE students sooner.

### Students/Parents

- Unaware of resources, or do not access them.
- Multitude of barriers: childcare, transportation, cost of attendance, cost of supplies (uniforms, tools, technology), textbooks, housing, food.
- Flexibility with class offerings.
- Difficult to navigate college processes.
- Outreach and marketing.
- Support is not always available i.e. tutoring, faculty availability.
- Students do not feel understood.
- Need upfront knowledge of program requirements i.e. time commitment, fees, required materials/supplies.

### CTE Faculty/Administration

- High school outreach and marketing.
- Needs for hands-on experience.
- Visibility and access of resources.
- Better use of time and space. Flexible scheduling.

## Continuing Engagement with Stakeholders

### Views from the Field on Continuing Engagement

- Because communication at all levels needs to be improved, state agencies need to take a role in harnessing, clarifying and disseminating information to the field.
  1. THECB and state agencies should coordinate communication about career pathways and articulate a state-level CTE agenda for example, TEKS and WECM.
  2. State agencies should facilitate the creation of secondary to postsecondary CTE curriculum continuities, such as CTE curricular and content maps.
  3. Agencies should align service areas.
- A CTE promotion and awareness initiative is needed at the state level.
  1. State-level promotion/emphasis on partnerships and collaborations is needed.
  2. THECB should spearhead cross sector collaborations and create the means for various stakeholders to communicate and collaborate at a higher level.
  3. There should be more efforts made to spread information about Perkins' priorities and goals to various stakeholders.
  4. Agencies should promote best practices in CTE.
- *Clear up the confusion at the state-level regarding endorsements/tracking/pathways with TEA and secondary education.\**
- There is a need to educate state-level minds on local policies. Policy is built at the state-level but may not match local needs.

### Issues Raised by Stakeholders about Continuing Engagement

#### Employers

- Connect and promote CTE to the high school and community.
- High school and college CTE need to be one pathway.
- Local/regional CTE council for promotion and coordination.
- THECB needs to be more involved with the workforce.

#### Regional Institutions

- More webinars and Q&A's from THECB.
- Publish best practices.
- THECB provides leadership/guidance/best practices for addressing equity and access.
- More Perkins trainings and continued/enhanced communications such as "Perkins Update."
- Selling the value and removing the stigma of CTE needs to start at the top with leadership and a CTE platform from the state.

#### Student Support Employees

- Continued conversation with various stakeholders to ensure student's needs are met.
- Institutional information sharing is vital. Everyone needs to work together. Remove silos.
- More funding for CTE.
- Some resources are underutilized.

**THECB APPENDIX 3:  
Postsecondary Perkins V Local Application**

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Local Application**

**Application:** Basic Grant

**Institution:**

### Local Application Requirements

*Each applicant shall submit a Local Application, comprising 10 sections, that address the nine statutory requirements of the Perkins Act and Goal Two: Completion of "60x30TX: Texas Higher Education Strategic Plan" (see [Appendix E](#)). The Local Application shall be consistent with the Requirements for Uses of Funds ([Appendix I](#)).*

*In the Local Application and in any other applicable sections of the application, "Special Populations" means: 1. individuals with disabilities; 2. individuals from economically disadvantaged families, including low-income youth and adults; 3. individuals preparing for non-traditional fields; 4. single parents, including single pregnant women; 5. out-of-workforce individuals; 6. English learners; 7. Homeless individuals described in section 725 of the McKinney-Vento Homeless Assistance Act (42 U.S.C 11434a); 8. Youth who are in, or have aged out of, the foster care system; and 9. Youth with a parent who a. Is a member of the armed forces (as such term is defined in section 101(a)(4) of title 10, United States Code); and b. Is on active duty (as such term is defined in section 101(d)(1) of such title).*

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#### Local Plan (10 items)

- (1) Describe the results of the comprehensive needs assessment conducted under [Appendix D](#).
- (2) Provide information on the institution's career and technical education course offerings and activities to be supported with Perkins funds, including programs of study approved by the State, including
  - A. how the results of the comprehensive needs assessment described in [Appendix D](#) informed the selection of the specific career and technical education programs and activities selected to be funded;
  - B. a description of any new programs of study the eligible recipient will develop and submit to the State for approval; and
  - C. how students, including students who are members of special populations, will learn about their school's career and technical education course offerings and whether each course is part of a career and technical education program of study.
- (3) Describe how the institution will collaborate with local workforce development boards and other local workforce agencies, one-stop delivery systems, and other partners to provide
  - A. career exploration and career development coursework, activities, or services;

- B. career information on employment opportunities that incorporate the most up-to-date information on high-skill, high-wage, or in-demand industry sectors or occupations, as determined by the comprehensive needs assessment described in [Appendix D](#); and
- C. an organized system of career guidance and academic counseling to students before enrolling and while participating in a career and technical education program.

(4) Describe how the institution will improve the academic and technical skills of students participating in career and technical education programs by strengthening the academic and career and technical education components of such programs through the integration of coherent and rigorous content aligned with challenging academic standards and relevant career and technical education programs to ensure learning in the subjects that constitute a well-rounded education (as defined in section 8101 of the Elementary and Secondary Education Act of 1965).

(5) Describe how the institution will

- A. provide activities to prepare special populations for high-skill, high-wage, or in-demand industry sectors or occupations that will lead to self-sufficiency;
- B. prepare CTE participants for non-traditional fields;
- C. provide equal access for special populations to career and technical education courses, programs, and programs of study; and
- D. ensure that members of special populations will not be discriminated against on the basis of their status as members of special populations.

(6) Describe the work-based learning opportunities that the institution will provide to students participating in career and technical education programs and how the recipient will work with representatives from employers to develop or expand work-based learning opportunities for career and technical education students.

(7) Describe how the institution will provide students participating in career and technical education programs with the opportunity to gain postsecondary credit while still attending high school, such as through dual or concurrent enrollment programs or early college high school.

(8) Describe how the institution will coordinate with the THECB and other institutions of higher education to support the recruitment, preparation, retention, and training, including professional development, of teachers, faculty, administrators, and specialized instructional support personnel who meet applicable State certification and licensure requirements, including individuals from groups underrepresented in the teaching profession.

(9) Describe how the institution will address disparities or gaps in performance in each of the State plan years, and if no meaningful progress has been achieved prior to the third program year, describe the additional actions the institution will take to eliminate those disparities or gaps.

(10) In addition to the nine items above, describe how the activities discussed above will contribute to Goal Two: Completion of "60x30TX: Texas Higher Education Strategic Plan."

Original Application

Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Performance Improvement Plan / Evaluation Plan**

**Application:** - Basic Grant

**Institution:**

**Perkins Core Indicator 1P1: Postsecondary Retention and Placement**

The percentage of CTE concentrators who, during the second quarter after program completion, remain enrolled in postsecondary education, are in advanced training, military service, or a service program that receives assistance under title I of the National and Community Service Act of 1990 (42 U.S.C. 12511 et seq.), are volunteers as described in section 5(a) of the Peace Corps Act (22 U.S.C. 2504(a)), or are placed or retained in employment.

Numerator: TBD

Denominator: TBD

**Actual Institutional Performance Compared to State Targets by Program Year**

Institution	2019-2020			2020-2021			2021-2022			2022-2023	
	Actual [1]	Target	90%	Actual [2]	Target	90%	Actual [3]	Target	90%	Target	90%
State Performance/Target	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
College Performance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Source: TBD Reporting Year: [1] TBD [2] TBD [3] TBD

2019-2020 State Target met?: N/A 90% met?: N/A 90% met at least once in last 3 years?: N/A

**Performance Improvement Plan**

*Summary of Plan:*

*Key CTE Programs and Activities Identified:*

*Specific Budget Items Requested:*

**Evaluation Plan**

Activities/Strategies	Timeline Planned	Target Measures

**Perkins Core Indicator 2P1: Earned Recognized Postsecondary Credential**

The percentage of CTE concentrators who receive a recognized postsecondary credential during participation in or within 1 year of program completion.

Numerator: TBD

Denominator: TBD

Actual Institutional Performance Compared to State Targets by Program Year											
Institution	2019-2020			2020-2021			2021-2022			2022-2023	
	Actual [1]	Target	90%	Actual [2]	Target	90%	Actual [3]	Target	90%	Target	90%
State Performance/Target	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
College Performance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Source: TBD Reporting Year: [1] TBD [2] TBD [3] TBD											
2019-2020 State Target met?: N/A 90% met?: N/A 90% met at least once in last 3 years?: N/A											

**Performance Improvement Plan**

*Summary of Plan:*

*Key CTE Programs and Activities Identified:*

*Specific Budget Items Requested:*

**Evaluation Plan**

Activities/Strategies	Timeline Planned	Target Measures

**Perkins Core Indicator 3P1: Non-Traditional Program Enrollment**

The percentage of CTE concentrators in career and technical education programs and programs of study that lead to non-traditional fields.

Numerator: TBD

Denominator: TBD

Actual Institutional Performance Compared to State Targets by Program Year											
Institution	2019-2020			2020-2021			2021-2022			2022-2023	
	Actual [1]	Target	90%	Actual [2]	Target	90%	Actual [3]	Target	90%	Target	90%
State Performance/Target	N/A	N/A	N/A	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
College Performance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Source: TBD Reporting Year: [1] TBD [2] TBD [3] TBD											
2019-2020 State Target met?: N/A 90% met?: N/A 90% met at least once in last 3 years?: N/A											

**Performance Improvement Plan**

*Summary of Plan:*

*Key CTE Programs and Activities Identified:*

*Specific Budget Items Requested:*

**Evaluation Plan**

Activities/Strategies	Timeline Planned	Target Measures

Original Application Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Cost Category Schedule A: Salaries and Fringe Benefits**

**Application:** - Basic Grant  
**Institution:**

I. Activity	Line	II. Title/Position	III. % of Time on Project	IV. Amount
<b>Total</b>				

Original Application Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Cost Category Schedule B: Travel**

**Application:** - Basic Grant  
**Institution:**

I. Activity	Line	II. Title/Position	III. Purpose	IV. Amount
<b>Total</b>				

Original Application Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program Year  
Cost Category Schedule C: Capital Outlay/Equipment**

**Application:** - Basic Grant  
**Institution:**

I. Activity	Line	II. Description	III. Amount
<b>Total</b>			

Original Application Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Cost Category Schedule D: Consultant and Service Contracts**

**Application:** - Basic Grant  
**Institution:**

I. Activity	Line	II. Individual or Firm	III. Purpose	IV. Amount
<b>Total</b>				

Original Application Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
Cost Category Schedule E: Subgrants Not Allowable for Basic**

**Application:** - Basic Grant  
**Institution:**

I. Activity	Line	II. Recipient	III. Purpose	IV. Amount
NA		N/A	N/A	
<b>Total</b>				



Original Application

Approved -

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
CB-100: Budget Summary Page**

Application: - Basic Grant

Institution:

COST CATEGORY	(A)  Original Budget	(B)  Cumulative Budget Revisions Requested	(C)  Revised Total Budget	(D)  Actual Cumulative Expenditures Through:
1. Salaries and Fringe Benefits (Schedule A)				
2. Travel (Schedule B)				
3. Capital Outlay/Equipment (Schedule C)				
4. Consultant and Service Contracts (Schedule D)				
5. Subgrants (Schedule E)				
6. Operating Expenses, Services, Books, and Supplies (Schedule F)				
7. SUBTOTAL - DIRECT (Lines 1-6)				
8. Administration (Schedule G)				
9. TOTAL (Line 7 plus Line 8)				
10. LAST EXPENDITURE REIMBURSEMENT REQUEST TOTAL (Line 9 Column D on prior request)				
11. TOTAL REIMBURSEMENT FOR THIS REQUEST (Line 9 minus Line 10)				
Name/Title of Chief Financial Officer	Signature  <i>Electronic Submission Authorized by Financial Identification Number (FIN)</i>		Phone/FAX/E-mail	

## FOR COORDINATING BOARD USE ONLY

Project Advisor:

BMS #:

COBJ:

Administrative Cost Method:

Original Application

Approved

**Texas Higher Education Coordinating Board  
Carl D. Perkins Grants for Program  
CB-320: Budget Summary by Activity**

**Application:** - Basic Grant

**Institution:**

ACTIVITY	COST BY CATEGORY						
	Salaries and Fringe Benefits (Schedule A)	Travel (Schedule B)	Capital Outlay/ Equipment (Schedule C)	Consultant and Service Contracts (Schedule D)	Subgrants (Schedule E)	Operating Expenses, Services, Books, and Supplies (Schedule F)	Total Activity Budget - Sum of Schedules A through F
1. Upgrade Curriculum							
2. Professional Development							
3. Guidance and Counseling							
4. Instructional Equipment							
5. Special Populations							
6. N/A							
7. Other							
8. One-Stop Shops							
9. <b>SUBTOTAL - DIRECT</b> (Lines 1-8)							
10. Administration (Schedule G)**							
11. <b>TOTAL</b>							

\*\* Expenditures reported on Line 10. Administration/Total Activity column, cannot exceed 5% of the actual direct expenditures on Line 9. SUBTOTAL - DIRECT/Total Activity column.

**THECB APPENDIX 4:**  
**Postsecondary Perkins V**  
**Comprehensive Local Needs Assessment**

# Comprehensive Local Need Assessment Instructions

## **I. Composing the CLNA Task Force**

The CLNA Task Force should be composed of individuals who have the ability and opportunity to work together closely on CLNA planning and execution over a concentrated period of time. Members should primarily be institutionally affiliated. A chair or co-chairs should be appointed to organize and facilitate Task Force meetings, oversee Task Force activities and make sure the CLNA process proceeds smoothly. The Task Force's suggested size is 8 to 12 members. The following list is a suggested guideline for putting together a CLNA Task Force.

- Vice Chancellor or Vice President for Workforce
- CTE Deans
- CTE Department or Division Heads
- CTE Faculty
- Member(s) of the institution's Industry Advisory Boards
- Representative(s) of local Workforce Development Board
- CTE student representative(s)

## **II. Planning**

- A.** *Determine specific geographic area subject to CLNA*
- B.** *Determine local goals, core messages and timeline*
- C.** *Identify Stakeholders and CLNA Task Force members*
- D.** *Identify local or regional collaborators in data development, stakeholder outreach, or other CLNA components*
- E.** *Determine means for seeking feedback*

## **III. Gathering Data, Evidence and Field Input**

### **A. *Student Performance Data***

- 1 Intentionally source data from multiple locations. Ensure that information is collected from a variety of sources using both quantitative and qualitative methods in order to cross-validate what is learned from one methodology or information source with is found from another source or method of data collection.
  - Data of use to the needs assessment process can come from internal sources, such as student performance data, student and parent survey findings, and feedback from industry advisory boards.
  - Data collected externally, such as third-party evaluations of programs, may also be used.
2. THECB Provided Data: The Coordinating Board will provide data for the institution's CTE student performance, disaggregated by special populations categories (Perkins IV historical), for two- and four-digit CIP codes.

## ***B. Labor Market Data***

1. Data collected externally for local or regional strategic plans and federal programs, such as the local WIOA plan filed annually by local Workforce Boards, may be of use.
2. TWC's State labor market information (LMI) tool (<https://texaslmi.com>) and results of state or third-party evaluations of programs may also be used.
3. Advisory committee evaluations or input may be used.
4. NB: TEA has developed data on median wage, growth, and annual openings in occupations for 13 career clusters. These data will be made available when TEA posts them following public comment.

## ***C. Stakeholder Engagement***

1. Compose a Stakeholder Engagement Strategy and Action Plan
  - Establish goals and objectives for communications and engagement efforts.
  - Create a topic list for stakeholder conversations. For example:
    - Discuss potential root causes of inequitable outcomes in your CTE programs (All stakeholders)
    - Discuss the relevant academic, technical and employability skills needed in CTE programs (All)
    - Discuss if all learners access high-quality CTE programs and what barriers currently exist that prevent special population groups from accessing your programs. (All)
    - Discuss what additional accommodations, modifications and supportive services would help ensure access and equity for all students within your programs. (All)
    - Discuss how better to inform and engage stakeholders in the effort to advance CTE. (All)
    - Discuss perceptions of what skill needs may be lacking in your programs (Industry, Employers)
    - Discuss what opportunities exist in your local labor market for students with disabilities, English learners or other special populations (Industry, Employers)
  - Determine how you will measure the success of your communications and engagement efforts.
2. Undertake Stakeholder Outreach
  - Identify priority stakeholders. Statute says at a minimum this includes:
    - Representatives of CTE programs in a local educational agency or educational service agency, including teachers, career guidance and academic counselors, principals and other school leaders, administrators, and specialized instructional support personnel and paraprofessionals;
    - Representatives of CTE programs at postsecondary educational institutions, including faculty and administrators;
    - Representatives of the State board or local workforce development boards and local or regional industries;
    - Parents and students;
    - Representatives of special populations;

- Representatives of regional or local agencies serving out-of-school youth, homeless children and youth, and at-risk youth;
  - Representatives of Indian Tribes and Tribal organizations in the State, where applicable.
  - Communicate strategically
    - Use core messages and create stakeholder-specific messages
    - Use multiple vehicles of communications
  - Structure engagements such as focus groups and surveys
3. Build Stakeholder Engagement
    - Use champions to move communications efforts forward
    - Provide a feedback loop to stakeholders to secure future participation
  4. Document Stakeholder Engagements
    - Although not required for CLNA submission, retain records of stakeholder engagements such as meeting notes, participant lists, presentations for audit purposes

#### **IV. Undertaking the CLNA Analysis**

The CLNA Analysis Matrix is a tool that can be used to streamline the tasks of gathering evidence, developing findings and determining goals. The Matrix is divided into the six main areas of inquiry mandated by Perkins V: Student Performance, Program Implementation, Labor Market Alignment, CTE Program Implementation, Faculty and Staff Recruitment and Training and Access/Equity. Each of the six areas has key questions that should be answered through your data review, stakeholder consultations and discussions among your institution’s CLNA work group.

The CLNA Analysis Matrix is **not** a required part of the submission of the CLNA.

#### **V. Composing the CLNA Narrative**

The CLNA Narrative is actually the CLNA you will be submitting to the THECB.

The body of your narrative should be the write up of the information and observations you collected on the CLNA Analysis Matrix. The Narrative should follow the CLNA Narrative Template, which indicates the sections and sub-sections required of the document, including a cover page, summary, narrative with the same six components found in the CLNA Matrix, and suggested Appendices.

Use the CLNA Checklist below for guidance on how to put together the different sections of the CLNA Narrative.

## CLNA CHECKLIST

<b>Sections</b>	<b>Page Limitation</b>	<b>Notes on Content</b>
Cover Page	1	
<b>Narrative</b>		
Part 1. Student Performance	Up to 4	Evidence base; Analysis; Goals
Part 2. Size, Scope & Quality	Up to 4	Evidence base; Analysis; Goals
Part 3. Labor Market Alignment	Up to 3	Evidence base; Analysis; Goals
Part 4. Implementing CTE	Up to 3	Evidence base; Analysis; Goals
Part 5. Recruitment, Retention & Training Staff & Faculty	Up to 3	Evidence base; Analysis; Goals
Part 6. Access & Equity	Up to 3	Evidence base; Analysis; Goals
<b>Appendices</b>		
Data Tables	No limit	Include original data Analyses; do not include THECB provided data tables
Stakeholder Results	No limit	Do not include rosters of participants but do save them for audit purposes; Include notes on stakeholder consultations

## REFERENCE FROM PERKINS V:

### ALIGNMENT WITH STATE PLAN REQUIREMENTS

Describe how your institutions will—

- i. make information on approved programs of study and career pathways (including career exploration, work-based learning opportunities, early college high schools, and dual or concurrent enrollment program opportunities) and guidance and advisement resources, available to students (and parents, as appropriate), representatives of secondary and postsecondary education, and special populations, and to the extent practicable, provide that information and those resources in a language students, parents, and educators can understand;
- ii. develop and coordinate career and technical education programs and programs of study and career pathways that include multiple entry and exit points;
- iii. use State, regional, or local labor market data to determine alignment of eligible recipients' programs of study to the needs of the regional, or local economy, including in-demand industry sectors and occupations identified by local workforce boards and employers, and align career and technical education with such needs;
- iv. ensure equal access to approved career and technical education programs of study and activities assisted by Perkins for special populations;
- v. support the local development of career pathways and articulate processes by which career pathways will be developed by local workforce development boards;
- vi. support effective and meaningful collaboration between secondary schools, postsecondary institutions, and employers to provide students with experience in, and understanding of, all aspects of an industry, which may include work-based learning such as internships, mentorships, simulated work environments, and other hands-on or inquiry-based learning activities; and
- vii. improve outcomes and reduce performance gaps for CTE concentrators, including those who are members of special populations. (Section 122(d)(4)(C) of Perkins V)

Comprehensive Local Need Assessment  
 Analysis Matrix - Editable Excel File at  
 TACTE Website

	EVIDENCE			FINDINGS		GOALS	
	Data to Review	Data Location	Stakeholders to Consult	Gaps	Potential Root Causes	Program Goals 2020-21	Program Goals 2021-2024
<b>STUDENT PERFORMANCE QUESTIONS</b>							
• How are students in your CTE programs performing (academic success, degree completion) in comparison to non-CTE students?							
• How are students from special populations performing in your CTE programs in comparison to CTE students who are not in those categories?							
• Which groups of students are struggling the most in CTE programs?							
• Which CTE programs overall have the highest student success rates and which have the lowest?							
• Are there certain CTE programs in which one or more special populations categories are performing above the general CTE student population?							
• Do the data suggest potential root causes for inequitable outcomes in your CTE programs?							
<b>PROGRAM IMPLEMENTATION – SIZE, SCOPE &amp; QUALITY ALIGNMENT QUESTIONS</b>							
• Are you offering a sufficient number of courses, and course sections, within programs?							

Comprehensive Local Need Assessment  
Analysis Matrix

<ul style="list-style-type: none"> <li>Are there students who want to enroll in your programs who are unable to do so?</li> <li>Should the need to transfer arise, do students have the ability to complete a program of study at your institution and/or other institutions in your service area?</li> </ul>									
<ul style="list-style-type: none"> <li>How do your programs compare to a set of quality standards developed by your state or by a relevant third party?</li> <li>How do specific program areas compare in quality?</li> <li>How do specific components of your programs, such as work-based learning or instruction, compare in quality?</li> </ul>									
<ul style="list-style-type: none"> <li>What industries are projected to grow the most in your local area? What occupations?</li> <li>Are your CTE program offerings broad enough to expose students to all the in-demand industry sectors or occupations in your region?</li> <li>How do your CTE program enrollments match projected job openings? Where are the biggest gaps?</li> <li>What are the emerging occupations in your area to which students should be exposed?</li> </ul>									

Comprehensive Local Need Assessment  
Analysis Matrix

<ul style="list-style-type: none"> <li>What skill needs have industry partners identified as lacking in your programs?</li> <li>Which graduates of your programs are thriving in the labor market, and why?</li> <li>What opportunities exist in your local labor market for students with disabilities, English learners or other special populations?</li> </ul>									
<ul style="list-style-type: none"> <li>How fully are your programs aligned and articulated across secondary and postsecondary education?</li> </ul>									

Comprehensive Local Need Assessment  
Analysis Matrix

	EVIDENCE		FINDINGS		GOALS		
	Data to Review	Data Location	Stakeholders to Consult	Gaps	Potential Root Causes	Program Goals 2020-21	Program Goals 2021-2024
<ul style="list-style-type: none"> <li>Do your programs incorporate relevant academic, technical and employability skills at every learner level? Do you have credit transfer agreements in place to help students earn and articulate credit?</li> <li>Are your students being retained in the same program of study?</li> <li>Do students in the programs of study have multiple entry and exit points?</li> <li>Are students in your programs earning recognized postsecondary credentials? Which ones?</li> <li>Are secondary students in your programs earning dual/concurrent enrollment credit?</li> </ul>							
<ul style="list-style-type: none"> <li>How diverse is your staff? Does it reflect the demographic makeup of the student body?</li> <li>What processes are in place to recruit and induct new faculty and staff? Are these processes efficient and effective, especially for faculty coming from industry?</li> <li>Are all of the faculty teaching your programs adequately credentialed? Do you offer regular, substantive professional development opportunities to faculty and staff?</li> </ul>							

Comprehensive Local Need Assessment  
Analysis Matrix

<ul style="list-style-type: none"> <li>What professional development offerings are most highly rated by participating staff?</li> <li>What do faculty report as needs and preferences for professional development, benefits and supports?</li> <li>In what subject areas do you need to develop or recruit more educators?</li> </ul>									
<ul style="list-style-type: none"> <li>Which special populations groups are underrepresented in your CTE programs overall and in particular program areas? Overrepresented?</li> <li>Are there additional enrollment discrepancies related to high-wage, high-skill occupations?</li> <li>Can all learners access high-quality CTE programs of study? What barriers currently exist that prevent special population groups from accessing your programs?</li> <li>How are special population groups performing in your programs?</li> <li>What accommodations, modifications and supportive services do you currently provide to ensure the success of special population groups? Which ones are most effective? Which ones are underutilized?</li> </ul>									

**Comprehensive Local Need Assessment  
Analysis Matrix**

<ul style="list-style-type: none"> <li>What additional accommodations, modifications and supportive services would help ensure access and equity for all students within your programs?</li> </ul>									
<ul style="list-style-type: none"> <li>How are you engaging the learners and communities you serve to better understand the problem and identify solutions?</li> </ul>									

# Comprehensive Local Need Assessment Narrative Template

## Summary Analysis:

1. Findings:
2. Vision:
3. Priorities:
4. Participants from your institution (Name, title, affiliation):
5. Local or regional collaborators in CLNA development:
6. Geographic area: How do you define "Local" for the purposes of this plan?

## Part 1. Student Performance

1. Evidence Base:
2. Analysis:
  - a. High Points
  - b. Gaps
    - i. Root Causes
3. Goals:
  - a. Program Goals 2020-21
  - b. Program Goals 2021-24

## Part 2. Size, Scope & Quality of Programs

1. Evidence Base:
2. Analysis:
  - a. High Points
  - b. Gaps
    - i. Root Causes
3. Goals:
  - a. Program Goals 2020-21
  - b. Program Goals 2021-24

## Part 3. Labor Market Alignment

1. Evidence Base:
2. Analysis:
  - a. High Points
  - b. Gaps
    - i. Root Causes
3. Goals:
  - a. Program Goals 2020-21
  - b. Program Goals 2021-24

## Part 4. CTE Program/Programs of Study Implementation

1. Evidence Base:
2. Analysis:

- a. High Points
- b. Gaps
  - i. Root Causes
- 3. Goals:
  - a. Program Goals 2020-21
  - a. Program Goals 2021-24

## **Part 5. Faculty/Staff Recruitment, Retention and Training**

- 1. Evidence Base:
- 2. Analysis:
  - a. High Points
  - b. Gaps
    - i. Root Causes
- 3. Goals:
  - a. Program Goals 2020-21
  - a. Program Goals 2021-24

## **Part 6. Improving Access & Equity**

- 1. Evidence Base:
- 2. Analysis:
  - a. High Points
  - b. Gaps
    - i. Root Causes
- 3. Goals:
  - a. Program Goals 2020-21
  - b. Program Goals 2021-24

