



CTE Career Clusters and Programs of Study

Agriculture, Food, and Natural Resources

- Animal Science
- Applied Agricultural Engineering
- Plant Science

Architecture and Construction

- Architectural Design
- **Construction Academy***

Arts, Audio/Video Technology and Communications

- **Creative Media Production Academy***
- Design and Multimedia Arts
- Digital Communications

Business, Marketing, and Finance

- Accounting and Financial Services
- **Business Management and Entrepreneurship Academy***
- Business Management

Education and Training

- Early Learning
- Teaching and Training

Engineering

- **STEM Academy***

Health Science

- **Biomedical Sciences Academy***
- Health Science

Hospitality and Tourism

- **Culinary Arts and Hospitality Academy***

Human Services

- **Cosmetology Academy***
- Family and Community Services

Information Technology

- Networking Systems
- Programming and Software Development

Manufacturing

- Advanced Manufacturing

Transportation, Distribution, and Logistics

- **Aviation Academy***

**Multiple Programs of Study may exist in each Career Academy*

TEA CTE Completer Guide

Program of Study Accountability

Completion of a program of study is among the indicators used for evaluating the performance of high school campuses and districts that include high school campuses.

Completer

A student served by an LEA who completes, passes, and receives credit for three or more high school CTE courses for four or more credits, including at least one level 3 or level 4 course, from within the same program of study.

A CTE completer must meet all of the criteria, from within the same program of study:

- 3 or more CTE courses for
- 4 or more credits, with at least
- One course (or more) at Level 3 or 4



CTE Level 1

Learning ABOUT Work

Build awareness of the variety of careers available and the role of postsecondary education; broaden student options.



CTE Level 2

Learning ABOUT Work

Explore career options and postsecondary for the purpose of motivating students and to inform their decision making in high school and postsecondary education.



CTE Level 3

Learning THROUGH Work

Apply learning through practical experience that develops knowledge and skills necessary for success in careers and postsecondary education.



CTE Level 4

Learning FOR Work

Train for employment and/or postsecondary education in a specific range of occupations.

CAREER AND TECHNICAL EDUCATION GUIDE

Recommended Course Sequences

Agriculture, Food, and Natural Resources			
Animal Science - Business and Industry Endorsement			
Principles of Agriculture, Food, and Natural Resources (1 credit)	Livestock Production (1 credit)	Veterinary Medical Applications (1 credit)	Advanced Animal Science (1 credit) or Practicum in Agriculture (2 credits) <i>[NOTE: Practicum is highly recommended.]</i>
Applied Agricultural Engineering - Business and Industry Endorsement			
Principles of Agriculture, Food, and Natural Resources (1 credit)	Agricultural Mechanics and Metal Technologies (1 credit)	Agricultural Equipment Design and Fabrication with Lab (2 credits)	Practicum in Agriculture (2 credits)
Plant Science - Business and Industry Endorsement			
Principles of Agriculture, Food, and Natural Resources (1 credit)	Horticulture Science (1 credit)	<ul style="list-style-type: none"> • Floral Design 1 (1 credit) or • Greenhouse Operations and Production (1 credit) 	Advanced Floral Design (1 credit) and/or Practicum in Agriculture (2 credits)
Architecture and Construction			
Architectural Design - Business and Industry Endorsement			
Principles of Architecture (1 credit)	Architectural Design I (1 credit)	Architectural Design II (2 credits)	Computer Aided Drafting for Architecture (1 credit)
Construction Academy - Business and Industry Endorsement			
Principles of Construction (1 credit)	Building Maintenance Technology I (2 credits) Course Available in 2026-2027	Building Maintenance Technology II (2 credits) Course Available in 2027-2028	Practicum in Construction Technology (2 credits) Course Available in 2028-2029

Arts, Audio/Video Technology and Communications

Creative Media Production Academy (NHS) - Business and Industry Endorsement

*Students in this academy can take any course in the academy as long as they have met the prerequisite for the course. For example, students must take a career exploration course before taking the corresponding career preparation course.

Digital Communications: Audio/Video Production

Design and Multimedia Arts: Commercial Photography and Graphic Design and Illustration

Principles of Arts, Audio/Video Technology, and Communications (1 credit)	Audio/Video Production I (1 credit)	Audio/Video Production II/ Lab (NHSTV) (2 credits)	Practicum in Audio/Video Production (NHSTV) (Internship) (2 credits)
	Commercial Photography I (1 credit)	Commercial Photography II (1 credit)	Practicum in Commercial Photography (Internship) (2 credits)
	Graphic Design and Illustration I (1 credit)	Graphic Design and Illustration II (1 credit)	Practicum in Graphic Design and Illustration (2 credits)

Design and Multimedia Arts - Business and Industry Endorsement

Principles of Arts, Audio/Video Technology, and Communications (1 credit)	Graphic Design and Illustration I (1 credit) or Commercial Photography I (1 credit)	Commercial Photography II (2 credits)	Practicum in Commercial Photography (2 credits)

Digital Communications - Business and Industry Endorsement

Principles of Arts, Audio/Video Technology, and Communications (1 credit)	Audio/Video Production I (1-2 credits)	Audio/Video Production II (1-2 credits)	Practicum in Audio/Video Production (2 credits)

Business, Marketing, and Finance

Accounting and Financial Services - Business and Industry Endorsement

Principles of Business, Marketing and Finance (1 credit)	Accounting I (1 credit)	Financial Analysis (1 credit)	Securities and Investments (1 credit)

Business Management and Entrepreneurship Academy (EHS) - Business and Industry Endorsement

Principles in Business, Marketing, and Finance (BME Fundamentals) (1 credit)	Entrepreneurship I (BME Operations) (1 credit)	Entrepreneurship II (BME Innovation) (1 credit)	Practicum in Business Management/VEI (BME Capstone) (2 credits)

Business Management - Business and Industry Endorsement			
Principles of Business, Marketing and Finance (1 credit)	Business Management (1 credit)	Business Information Management I (1 credit)	Business Law (1 credit) or Business Information Management II (1 credit)
Education and Training			
Early Learning - Public Service Endorsement			
Route 1			
9th Grade		Principles of Education and Training (1 credit)	
10th Grade		Child Development (1 credit)	
11th Grade		Child Guidance (2 credits)	
12th Grade		Practicum in Early Learning (2 credits)	
Route 2			
8th Grade		Principles of Human Services (1 credit)	
9th Grade		Principles of Education and Training (1 credit)	
10th Grade		Child Development (1 credit)	
11th Grade		Child Guidance (2 credits)	
12th Grade		Practicum in Early Learning (2 credits)	

Teaching and Training - Public Service Endorsement

Route 1

9th Grade	Principles of Education and Training (1 credit)
10th Grade	Child Development (1 credit)
11th Grade	Instructional Practices (2 credits)
12th Grade	Practicum in Education and Training (2 credits)

Route 2

8th Grade	Principles of Human Services (1 credit)
9th Grade	Principles of Education and Training (1 credit)
10th Grade	Child Development (1 credit)
11th Grade	Instructional Practices (2 credits)
12th Grade	Practicum in Education and Training (2 credits)

Engineering				
STEM Academy (NHS) - Business and Industry or STEM Endorsement				
Science	STEM Honors Biology (SC.25H/AC)	STEM Honors Chemistry (SC.27H/AC)	STEM OnRamps Physics (D92OR/AC)	Advanced Science
Math	STEM Honors Geometry (M.112H/AC)	STEM OnRamps Algebra II (D94OR/AC)	Honors/AP Precalculus or OnRamps Precalculus	AP Calculus AB or BC
English	STEM Honors English I (ELA.1H/AC)	STEM Honors English II (ELA.2H/AC)	STEM OnRamps English III (D91OR/AC)	STEM English IV (0024/AC) or STEM English IV AP (ELA.2A/AC) or DC Technical & Business Writing (CT.D90025)
PLTW Academy Courses	PLTW Introduction to Engineering Design (IED) (1 credit)	Engineering Design & Presentation I (PLTW Principles of Engineering - POE) (1 credit)	<ul style="list-style-type: none"> • PLTW Aerospace Engineering (AE) or • PLTW Civil Engineering and Architecture (CEA) or • PLTW Digital Electronics (DE) or • Eng Design Presentation II (2 credits) 	PLTW Engineering Design and Development (EDD) (1 credit)
Optional STEM Courses	Honors Computer Science I (LOTE) (CT.849/AC) (1 credit)	Honors Computer Science II (LOTE) or Foundations of Cybersecurity (PLTW Cybersecurity)	Honors Computer Science III or Foundations of Cybersecurity (PLTW Cybersecurity) or Scientific Research and Design STEM	Practicum in STEM or Eng Design & Problem Solving
Health Science				
Biomedical Sciences Academy (BNHS) - Public Service or STEM Endorsement				
PLTW Academy Courses	PLTW Principles of Biomedical Sciences (PBS) (1 credit)	PLTW Human Body Systems (HBS) (1 credit)	PLTW Medical Interventions (MI) (1 credit)	PLTW Biomedical Innovation (BI) (1 credit) or Alternative Certification Course
Suggested Courses	Honors Biology	Honors Chemistry	AP Biology or AP Chemistry	Advanced Animal Science, Forensic Science, or Statistics

Health Sciences - Public Service Endorsement			
Principles of Health Science (1 credit)	Health Science Theory (1 credit)	Anatomy and Physiology (1 credit)	Practicum in Health Science (EMT or CCMA) (2 credits)
Hospitality and Tourism			
Culinary Arts and Hospitality Academy (BNHS) - Business and Industry Endorsement			
Principles of Hospitality & Tourism (1 credit)	Intro to Culinary Arts (1 credit)	Culinary Arts (2 credits)	Practicum in Culinary Arts/ Extended Practicum in Culinary Arts (3 credits)
Human Services			
Cosmetology Academy (NHS) - Business and Industry Endorsement			
No 9th Grade course offered.	No 10th Grade course offered.	<ul style="list-style-type: none"> • Cosmetology I with Lab (3 credits) and • Intro to Cosmetology (1 credit) 	<ul style="list-style-type: none"> • Cosmetology II with Lab (3 credits) and • Intro to Cosmetology (1 credit for 25-26 only)
Family and Community Services - Public Service Endorsement			
Route 1			
9th Grade	Principles of Human Services (1 credit)		
10th Grade	Family and Community Services (1 credit)		
11th Grade	Counseling and Mental Health (1 credit)		
12th Grade	Practicum in Human Services (2 credits)		
Route 2			
7th Grade	Lifetime Nutrition Wellness (.5 credit) / Interpersonal Studies (.5 credit)		
8th Grade	Principles of Human Services (1 credit)		
9th Grade	Family and Community Services (1 credit)		
10th Grade	Counseling and Mental Health (1 credit)		
11th Grade	Practicum in Human Services (2 credits)		
12th Grade	Extended Practicum in Human Services (3 credits)		

Information Technology			
Networking Systems - Business and Industry or STEM Endorsement			
No 9th Grade course offered.	Computer Maintenance (1 credit)	Networking (1 credit)	Practicum in Information Technology (2 credits)
			Independent Study in Technology Applications (1 credit)
Programming and Software Development - Business and Industry or STEM Endorsement			
Computer Science I/Honors Computer Science I* (1 credit)	Computer Science II/ Honors Computer Science II* (1 credit)	Honors Computer Science III* (1 credit)	Practicum in Information Technology (2-3 credits)
			Independent Study in Technology Applications (1 credit)
Manufacturing			
Advanced Manufacturing - Business and Industry or STEM Endorsement			
Principles of Manufacturing (1 credit)	Manufacturing Engineering Technology I (1 credit)	Manufacturing Engineering Technology II (1 credit)	Practicum in Manufacturing (2 credits)

*NOTE: Computer Science I, II, and III satisfy state requirements for Languages other than English (LOTE)

Transportation, Distribution, and Logistics				
Aviation Academy (EHS) - Business and Industry or STEM Endorsement				
Aviation Mechanics* (TCCD)	Introduction to Aerospace and Aviation [1 HS Credit]	Introduction to Aircraft Technology [1 HS Credit]	DC Aircraft Airframe Tech [3 HS Credits]	DC Aircraft Powerplant Technology/ Advanced Transportation Systems Laboratory (Dual Credit) [3 HS Credits]
	Introduction to Aerospace and Aviation [1 HS Credit]	Introduction to Aircraft Technology [1 HS Credit]	Introduction to Unmanned Aerial Vehicles [1 HS Credit]	Practicum in Transportation Systems First Time Taken [2 HS Credits]
Pilot*** (EHS/TCCD)	Introduction to Aerospace and Aviation [1 HS Credit]	Introduction to Aircraft Technology [1 HS Credit]	Aviation Ground School [1 HS Credit] (EHS)	Private Pilot (TCCD)
				Practicum in Transportation Systems/Extended Practicum in Transportation Systems First Time Taken (Dual Credit) [3 HS Credits]
				Private Pilot (Simulator)
				Practicum in Transportation Systems First Time Taken [2 HS Credits] (EHS)

Seniors in the Aviation Academy wanting to take PBC/senior release must have completed all online dual credit courses, edgenuity courses for original credit, or edgenuity Academic Coaching Program (ACP) courses. Dual Credit Private Pilot Students must also pass the FAA Private Pilot written exam administered in quarter two of their senior year.

Dual Credit Courses offered throughout the program will be determined by the college in partnership with the Academy Facilitator.

* During their Junior and Senior years, students in the Aviation Mechanics Pathway will take two dual credit courses each semester. Completion of TSIA-2 ELAR and Mathematics is required for TCC enrollment. In addition, many of these courses require a high-stakes FAA regulated exam that must be passed in order to pass the class.

** During their Senior year, students in the TCC Private Pilot Pathway will take two dual credit courses each semester. Completion of TSIA-2 ELAR and Mathematics may be required for TCC enrollment. In addition, many of these courses require a high-stakes FAA regulated exam that must be passed in order to pass the class.