

The background features a large rainbow arching over a green hill. Two Cat in the Hat characters are standing on the hill, one on the left and one on the right, both wearing red bows. In the center, above the main text, is a red Roman helmet with a plume. The text "CAT IN THE HAT" is written in large, bold, red letters with a black outline in the top right corner.

**CAT
IN THE
HAT**

2024–2025

**CTE
Programs
Of
Study**

Roma High School



Agriculture, Food, and Natural Resources Career Cluster

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 occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Agriculture Business, Leadership, and Communications

The Agriculture Business, Leadership, and Communications program of study focuses on occupational and educational opportunities associated with farming and agriculturally related businesses that supply farm inputs, such as machinery and seeds. This program of study includes exploration of farm product marketing, the purchase of farm products either for processing or resale, and the process of grading or classifying unprocessed food or other agricultural products.



Secondary Courses for High School Credit

- | | |
|----------------|---|
| Level 1 | <ul style="list-style-type: none"> Principles of Agriculture, Food, and Natural Resources 1620 Professional Communications 1621 |
| Level 2 | <ul style="list-style-type: none"> Professional Standards in Agribusiness 1623 |
| Level 3 | <ul style="list-style-type: none"> Agribusiness Management and Marketing 1625 |
| Level 4 | <ul style="list-style-type: none"> Agricultural Leadership, Research, and Communications 1627 |

Aligned Advanced Academic Courses

AP or IB

AP Microeconomics
AP Statistics
IB Economics SL
IB Economics HL
IB Mathematics Analysis and Approaches SL
IB Mathematics Analysis and Approaches HL

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow at a farm or ranch that manages livestock and crops to learn about processing and sales
- Intern at an agrochemical manufacturer to learn about new technologies in agribusiness

Expanded Learning Opportunities

- Participate in an FFA career, leadership, and speaking contest like an agriscience fair
- Attend an agricultural industry seminar

Aligned Industry-Based Certifications

- Entrepreneurship and Small Business



Successful completion of the Agriculture Business, Leadership, and Communications program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Associate Degrees

- Accounting
- Agribusiness

Bachelor's Degrees

- Agriculture Economics
- Agribusiness

Master's, Doctoral, and Professional Degrees

- Accounting
- Applied Economics

Additional Stackable IBCs/Licensures

- Accredited Farm Manager



Example Aligned Occupations

Loan Interviewers and Clerks

Median Wage: \$46,572
Annual Openings: 2,307
10-Year Growth: 10%

Loan Officers

Median Wage: \$66,285
Annual Openings: 2,261
10-Year Growth: 14%

Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

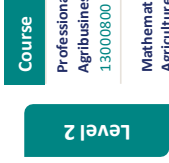


Agriculture, Food, and Natural Resources Career Cluster Statewide Program of Study: Agriculture Business, Leadership, and Communications

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Agriculture, Food, and Natural Resources* 13000200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  
Professional Communications 13000900 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  

Level 1



Course	Prerequisites Corequisites	Career Clusters
Professional Standards in Agriculture Business 13000800 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Mathematical Applications in Agriculture, Food, and Natural Resources 13001000 (1 credit)	Prerequisites: Algebra I Corequisites: None Recommended Prerequisites: one credit from the courses in the AFNR Career Cluster. Recommended Corequisites: None	
Entrepreneurship * 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing and Finance Recommended Corequisites: None	  

Level 2



Course	Prerequisites Corequisites	Career Clusters
Agriculture Management and Marketing 13000900 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Agriculture Management and Marketing * Agricultural Laboratory and Field Experience 13000910 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 3

* Indicates course is included in more than one program of study.

For additional information on the Agriculture, Food, and Natural Resources career cluster,
contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Agriculture, Food, and Natural Resources Career Cluster Statewide Program of Study: Agriculture Business, Leadership, and Communications

Course Information

Course	Prerequisites Corequisites	Career Clusters
Agricultural Leadership, Research, and Communications N1300266 (1 credit)	Prerequisites: One credit from courses in the AFNR career cluster. Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  
Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002500 (2 credits) Second Time Taken: 13002510 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the AFNR career cluster Recommended Corequisites: None	  
Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002505 (3 credits) Second Time Taken: 13002515 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the AFNR career cluster Recommended Corequisites: None	  
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II Recommended Corequisites: None	  

Level 4

Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: at least one level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: at least one level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  

* Indicates course is included in more than one program of study.

For additional information on the Agriculture, Food, and Natural Resources career cluster,
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Agriculture Business, Leadership, and Communications

Agriculture Business, Leadership, and Communications



Agriculture, Food, and Natural Resources Career Cluster

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 occupations, ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Agricultural Technology and Mechanical Systems

The Agricultural Technology and Mechanical Systems program of study focuses on occupational and educational opportunities associated with applying engineering technology and biological science to agricultural problems related to power and machinery, electrification, structures, soil and water use, and processing agricultural products. This program of study includes diagnosing, repairing, or overhauling farm machinery and vehicles, such as tractors, harvesters, dairy equipment, and irrigation systems.

Secondary Courses for High School Credit

Level 1 • Principles of Agriculture, Food, and Natural Resources 1620

Level 2 • Agricultural Mechanics and Metal Technologies 1622

Level 3 • Agricultural Structures Design and Fabrication 1624
• Agricultural Power Systems 1626

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Participate in a farm mechanic apprenticeship at an equipment production company
- Intern at an equipment manufacturing facility working with agricultural engineers

Expanded Learning Opportunities

- Participate in an FFA career, leadership, and speaking contest like an agriscience fair
- Participate in an agriculture robotics event

Aligned Industry-Based Certifications

- AWS Certified Welder
- AWS D1.1 Structural Steel
- AWS D9.1 Sheet Metal Welding
- AWS SENSE Level I: Entry Welder
- NCCER Core *



Successful completion of the Agricultural Technology and Mechanical Systems program of study will fulfill requirements of a Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Farm Equipment Mechanic I

Associate Degrees

- Diesel Mechanics Technology
- Industrial Mechanics and Maintenance Technology

Bachelor's Degrees

- Agricultural Engineering
- Agricultural Systems Management

Master's, Doctoral, and Professional Degrees

- Agricultural Engineering
- Industrial Technology

Additional Stackable IBCs/Licensures

- Diesel Equipment Technology-Off Highway Specialization CER1
- Accredited Farm Manager



Example Aligned Occupations

Farm Equipment Mechanics and Service Technicians

Median Wage: \$46,582
Annual Openings: 326
10-Year Growth: 23%

Mobile Heavy Equipment Mechanics

Median Wage: \$57,943
Annual Openings: 2637
10-Year Growth: 31%

Farmers, Ranchers, and Other Agricultural Managers

Median Wage: \$65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: Agricultural Technology and Mechanical Systems



Course Information

Level 1			Career Clusters
Course	Prerequisites Corequisites		
Principles of Agriculture, Food, and Natural Resources* 13002200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		
Level 2			Career Clusters
Course	Prerequisites Corequisites		
Agricultural Mechanics and Metal Technologies 13002200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of AFNR Recommended Corequisites: None		
Agricultural Mechanics and Metal Technologies + Agricultural Laboratory and Field Experience 13002210 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of AFNR Recommended Corequisites: None		
Level 3			Career Clusters
Course	Prerequisites Corequisites		
Geographic Information Systems (GIS) for Agriculture N1300272 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of AFNR Recommended Corequisites: None		
Agricultural Structures Design and Fabrication 13002300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Agricultural Mechanics and Metal Technologies Recommended Corequisites: None		
Agricultural Structures Design and Fabrication + Agricultural Laboratory and Field Experience 13002310 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Agricultural Mechanics and Metal Technologies Recommended Corequisites: None		
Agricultural Power Systems 13002400 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of AFNR Recommended Corequisites: None		
Agricultural Power Systems + Agricultural Laboratory and Field Experience 13002410 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of AFNR Recommended Corequisites: None		

* Indicates course is included in more than one program of study.

For additional information on the Agriculture, Food, and Natural Resources career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Agricultural Technology and Mechanical Systems

Agriculture, Food, and Natural Resources Career Cluster

Statewide Program of Study: Agricultural Technology and Mechanical Systems



Course Information

Level 4			Career Clusters
Course	Prerequisites Corequisites		
Advanced Agriculture Power Systems TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD		
Agricultural Equipment Design and Fabrication 13002350 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Agricultural Mechanics and Metal Technologies Recommended Corequisites: None		
Agricultural Equipment Design and Fabrication + Agricultural Laboratory and Field Experience 13002360 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Agricultural Mechanics and Metal Technologies Recommended Corequisites: None		
Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002500 (2 credits) Second Time Taken: 13002510 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the AFNR career cluster Recommended Corequisites: None		
Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources* First Time Taken: 13002505 (3 credits) Second Time Taken: 13002515 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the AFNR career cluster Recommended Corequisites: None		
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: at least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: at least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		
Scientific Research and Design 13037200 (1 credit)	Prerequisites: Biology, Chemistry, Integrated Physics, Chemistry (IPC) or Physics Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		
Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		

* Indicates course is included in more than one program of study.

For additional information on the Agriculture, Food, and Natural Resources career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Agricultural Technology and Mechanical Systems



Architecture and Construction Career Cluster

The Architecture and Construction career cluster focuses on designing, planning, managing, building, and maintaining the built environment. This career cluster includes occupations ranging from architect, carpenter, and construction manager to electrician, plumber and heating, air conditioning and refrigeration technician.

Statewide Program of Study: Carpentry

The Carpentry program of study focuses on occupational and educational opportunities related to constructing, installing, and repairing structures and fixtures made of wood including frameworks, partitions, joists, studding, rafters, and stairways. The program of study includes installing, dismantling, or moving machinery and heavy equipment according to layout plans, blueprints, or other drawings.



Secondary Courses for High School Credit

- | | |
|---------|---|
| Level 1 | • Principles of Construction 1700 |
| Level 2 | • Construction Technology I 1704 |
| Level 3 | • Construction Technology II 1706
• Mill and Cabinetmaking Technology 1702 |

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	- Intern with a carpenter to practice skills such as measuring materials and assembling structures - Participate in a pre-apprenticeship which includes activities like installing cabinets, drywall, and siding
Expanded Learning Opportunities	- Shadow a construction manager to learn more about how construction teams work together to complete projects - Participate in SkillsUSA

Industry-Based Certifications

- HBI Pre-Apprenticeship Certificate Training (PACT), Basic Carpentry *
- NCCER Core



Successful completion of the Carpentry program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Postsecondary Opportunities

Apprenticeships

- Carpenter

Associate Degrees

- Construction Management
- Construction Engineering Technology
- Building Construction Technology

Bachelor's Degrees

- Construction Engineering
- Construction Science
- Construction Site Management

Master's, Doctoral, and Professional Degrees

- Construction Engineering Technology
- Construction Engineering
- Construction Management
- Project Management



Example Aligned Occupations

Drywall and Ceiling Tile Installers

Median Wage: \$44,699

Annual Openings: 758

10-Year Growth: 14%

Carpenters

Median Wage: \$46,272

Annual Openings: 5,623

10-Year Growth: 15%

Construction Managers

Median Wage: \$95,072

Annual Openings: 6,325

10-Year Growth: 24%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Architecture and Construction Career Cluster

Statewide Program of Study: Carpentry

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Architecture* 13004210 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Construction* 13004220 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 1

Course	Prerequisites Corequisites	Career Clusters
Construction Technology I 13005100 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Construction or Principles of Architecture Recommended Corequisites: None	
Entrepreneurship* (13011101) (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing and Finance Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Construction Technology II 13005200 (2 credits)	Prerequisites: Construction Technology I Corequisites: None Recommended Prerequisites: Principles of Construction or Principles of Architecture Recommended Corequisites: None	
Mill and Cabinetmaking Technology 13005300 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Architecture and Principles of Construction Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Architecture and Construction career cluster, contact CTC@tea.texas.gov or visit <https://tea.texas.gov/ctc>

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Architecture and Construction Career Cluster

Statewide Program of Study: Carpentry

Course Information

Course	Prerequisites Corequisites	Career Clusters
Practicum in Construction Technology* First Time Taken: 13005250 (2 credits) Second Time Taken: 13005260 (2 credits)	Prerequisites: Construction Technology I; Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Construction Technology/Extended Practicum in Construction Technology* First Time Taken: 13005255 (3 credits) Second Time Taken: 13005265 (3 credits)	Prerequisites: Construction Technology I; Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation, and Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Course	Prerequisites Corequisites	Career Clusters
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	

Course	Prerequisites Corequisites	Career Clusters
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Course	Prerequisites Corequisites	Career Clusters
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Architecture and Construction career cluster, contact CTC@tea.texas.gov or visit <https://tea.texas.gov/ctc>

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Carpentry

Carpentry

Arts, Audio Visual Technology and Communication Career Cluster

The Arts, Audio Visual Technology and Communication (AAVTC) career cluster focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content requiring creative aptitude, fluency in computer and technology applications, and proficiency in oral and written communication. This career cluster includes occupations ranging from camera operator, audio and video technician, director, and producer to graphic designer and web and digital interface designer.

Statewide Program of Study: Digital Communications

The Digital Communications program of study focuses on occupational 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. The program of study includes operating machines and equipment such as microphones, sound speakers, video screens, projectors, video monitors, sound and mixing boards, and related electronic equipment to record sound and images.



Secondary Courses for High School Credit

- | | |
|----------------|--|
| Level 1 | • Principles of Arts, Audio/Video Technology, and Communications 1718 |
| Level 2 | • Audio/Video Production I 1720 |
| Level 3 | • Audio/Video Production II 1722 |
| Level 4 | • Practicum in Audio/Video Production 1724 |

Aligned Advanced Academic Courses

AP or IB IB Fi Im SL
IB Fi Im HL

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	- Shadow a sound designer to learn how sound and folly is created for movies or podcasts - Intern with a technical director at a sports team, recording studio, or radio station - Shadow a technician on a live news broadcast, concert, or other event
Expanded Learning Opportunities	- Participate in SkillsUSA or TSA - Participate in Student Television Network - Capture and edit film and audio for a podcast with a local community organization

Aligned Industry-Based Certifications

- **Digital Video Production Foundations**



Successful completion of the Digital Communications program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Light Technician

Associate Degrees

- Commercial and Advertising Art
- Animation, Interactive Technology, Video Graphics, and Special Effects

Bachelor's Degrees

- Cinematography and Film/Video Production
- Recording Arts Technology

Master's, Doctoral, and Professional Degrees

- Animation, Interactive Technology, Video Graphics, and Special Effects
- Communications Technology

Additional Stackable IBCs/Licensures

- CompTIA Digital Media and Entertainment Professional Certification (DMEP)



Example Aligned Occupations

Camera Operators, Television, Video, and Film

Median Wage: \$48,422
Annual Openings: 155
10-Year Growth: 20%

Audio and Video Technicians

Median Wage: \$46,319
Annual Openings: 626
10-Year Growth: 30%

Producers and Directors

Median Wage: \$65,029
Annual Openings: 522
10-Year Growth: 12%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Digital Communications

Course Information

Level 1		Course	Prerequisites Corequisites	Career Clusters
		Principles of Arts, Audio/Video Technology, and Communications* 13008200 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Web Communications* 03580810 (0.5 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Professional Communications 13009900 (0.5 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Digital Communications in the 21st Century 03580610 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Level 2		Course	Prerequisites Corequisites	Career Clusters
		Digital Audio Technology I 13009950 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC or Digital Media or both Audio/Video Production I and Audio/Video Production I Lab Recommended corequisites: None	
		Audio/Video Production I 13008500 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: Audio/Video Production I Lab	
		Audio/Video Production I + Audio/Video Production I Lab 13008510 (2 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC or Digital Media Recommended corequisites: None	
		Digital Design and Media Production* 13008510 (2 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Entrepreneurship* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Digital Audio Technology II 13009960 (1 credit)	Prerequisites: Digital Audio Technology I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Audio/Video Production II 13008600 (1 credit)	Prerequisites: Audio/Video Production I Corequisites: None Recommended prerequisites: None Recommended corequisites: Audio/Video Production I Lab	
		Audio/Video Production II + Audio/Video Production II Lab 13008610 (2 credit)	Prerequisites: Audio/Video Production I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Level 3		Course	Prerequisites Corequisites	Career Clusters
		Digital Audio Technology II 13009960 (1 credit)	Prerequisites: Digital Audio Technology I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Audio/Video Production II 13008600 (1 credit)	Prerequisites: Audio/Video Production I Corequisites: None Recommended prerequisites: None Recommended corequisites: Audio/Video Production I Lab	
		Audio/Video Production II + Audio/Video Production II Lab 13008610 (2 credit)	Prerequisites: Audio/Video Production I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Audio/Video Production II + Audio/Video Production II Lab 13008610 (2 credit)	Prerequisites: Audio/Video Production I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Arts, Audio Visual Technology and Communication career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Digital Communications

Course Information

Level 4		Course	Prerequisites Corequisites	Career Clusters
		AI Video Editing TBD (TBD credits)	Prerequisites: TBD Corequisites: TBD Recommended prerequisites: TBD Recommended corequisites: TBD	
		Practicum in Digital Audio Technology N1300996 (2 credits)	Prerequisites: Digital Audio Technology I and Digital Audio Technology II Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits) Second Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a career and technical education (CTE) program of study Recommended corequisites: None	
		Practicum in Audio/Video Production First Time Taken: 13008700 (2 credits) Second Time Taken: 13008710 (2 credits)	Prerequisites: Audio/Video Production I and Audio/Video Production I Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Practicum in Audio/Video Production + Extended Practicum in Audio/Video Production First Time Taken: 13008705 (3 credits) Second Time Taken: 13008715 (3 credits)	Prerequisites: Audio/Video Production I and Audio/Video Production I Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
		Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Arts, Audio Visual Technology and Communication career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

Arts, Audio Visual Technology and Communication Career Cluster



The Arts, Audio Visual Technology and Communication (AAVTC) career cluster focuses on designing, producing, exhibiting, performing, writing, and publishing multimedia content requiring creative aptitude, fluency in computer and technology applications, and proficiency in oral and written communication. This career cluster includes occupations ranging from camera operator, audio and video technician, director, and producer to graphic designer and web and digital interface designer.

Statewide Program of Study: *Graphic Design and Interactive Media*

The Graphic Design and Interactive Media program of study focuses on occupational and educational opportunities associated with designing or creating graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. The program of study includes designing clothing and accessories, 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.



Secondary Courses for High School Credit

Level 1 • Principles of Arts, Audio/Video Technology, and Communications **1718**

Level 2 • Digital Design and Media Production **1672**
• Graphic Design and Illustration I **1726**

Level 3 • Graphic Design and Illustration II **1727**

Aligned Advanced Academic Courses

AP or IB AP Studio Art: Two-Dimensional Design Portfolio

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow an art director at a branding firm or design agency
- Intern in the marketing and communications department of a technology company

Expanded Learning Opportunities

- Participate in SkillsUSA or TSA
- Participate in Student Television Network
- Join a related co-curricular or extracurricular club such as web development or computer coding

Aligned Industry-Based Certifications

- Adobe Certified Professional in Visual Design Using Adobe Photoshop



Successful completion of the Graphic Design and Interactive Media program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Associate Degrees

- Graphic Design
- Digital Arts

Bachelor's Degrees

- Web Page, Digital/Multimedia and Information Resources Design
- Design and Visual Communications

Master's, Doctoral, and Professional Degrees

- Game and Interactive Media Design
- Animation, Interactive Technology, Video Graphics, and Special Effects

Additional Stackable IBCs/Licensures

- Certified Textile Designer (CTD)



Example Aligned Occupations

Software Developers

Median Wage: \$111,705
Annual Openings: 15,324
10-Year Growth: 36%

Graphic Designers

Median Wage: \$50,973
Annual Openings: 1,766
10-Year Growth: 10%

Art Directors

Median Wage: \$81,926
Annual Openings: 619
10-Year Growth: 18%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study/additional-resources>

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Graphic Design and Interactive Media

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Arts, Audio/Video Technology, and Communications* 13008200 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Video Game Design 13009970 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: None	
Digital Media 13027800 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Web Communications* 03580810 (0.5 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Game Programming and Design 03580380 (1 credit t)	Prerequisites: Algebra I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Foundations of User Experience (UX) N1302809 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Digital Design and Media Production* 03580400 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Video Game Programming N1300994 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Video Game Design Recommended corequisites: None	
Graphic Design and Illustration I* 13008800 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: Graphic Design and Illustration I Lab	
Graphic Design and Illustration I + Graphic Design and Illustration I Lab* 13008810 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: None	
Animation I 13008300 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: Animation I Lab	
Animation I + Animation I Lab 13008310 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: None	
Fashion Design I 13009300 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: Fashion Design I Lab	
Fashion Design I + Fashion Design I Lab 13009310 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of AAVTC Recommended corequisites: None	
Commercial Photography I 13009100 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: Commercial Photography I Lab	
Commercial Photography I + Commercial Photography I Lab 13009110 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Entrepreneurship I* 13011101 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of Business, Marketing, and Finance Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Arts, Audio Visual Technology and Communication career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Graphic Design and Interactive Media

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Graphic Design and Interactive Media

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Digital Art and Animation 03580500 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Art I Recommended corequisites: None	
3-D Modeling and Animation 03580510 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Art I Recommended corequisites: None	
Web Game Development 03580830 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Web Design Recommended corequisites: None	
Advanced Video Game Programming N1300995 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Video Game Design and Video Game Programming Recommended corequisites: None	
Advanced User Experience Design N1302814 (1 credit t)	Prerequisites: Foundations of User Experience (UX) Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Graphic Design and Illustration II 13008900 (1 credit t)	Prerequisites: Graphic Design and Illustration I Corequisites: None Recommended prerequisites: None Recommended corequisites: Graphic Design and Illustration II Lab	
Graphic Design and Illustration II + Graphic Design and Illustration II Lab 13008910 (2 credit ts)	Prerequisites: Graphic Design and Illustration I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Animation II 13008400 (1 credit t)	Prerequisites: Animation I Corequisites: None Recommended prerequisites: None Recommended corequisites: Animation II Lab	
Animation II + Animation II Lab 13008410 (2 credit ts)	Prerequisites: Animation I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Fashion Design II 13009400 (1 credit t)	Prerequisites: Fashion Design I Corequisites: None Recommended prerequisites: None Recommended corequisites: Fashion Design II Lab	
Fashion Design II + Fashion Design II Lab 13009410 (2 credit ts)	Prerequisites: Fashion Design I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Commercial Photography II 13009200 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: Commercial Photography I and Commercial Photography I Lab Recommended corequisites: Commercial Photography II Lab	
Commercial Photography II + Commercial Photography II Lab 13009210 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: Commercial Photography I and Commercial Photography I Lab Recommended corequisites: None	

* Indicates course is included in more than one program of study.

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Graphic Design and Interactive Media

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Graphic Design and Interactive Media

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Virtual Production TBD (TDB credits)	Prerequisites: TBD Corequisites: TBD Recommended prerequisites: TBD Recommended corequisites: TBD	
Independent Study In Technology Applications First Time Taken: 03580900 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: a minimum of one credit from the courses in the Information Technology career cluster Recommended corequisites: None	
Independent Study In Evolving/Emerging Technologies First Time Taken: 03581500 (1 credit t)	Prerequisites: None Corequisites: None Recommended prerequisites: a minimum of one credit from the courses in the Information Technology career cluster Recommended corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credit ts)	Prerequisites: None Corequisites: None Recommended prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a career and technical education (CTE) program of study Recommended corequisites: None	
Practicum in Animation First Time Taken: 13008450 (2 credit ts) Second Time Taken: 13008460 (2 credit t)	Prerequisites: Animation I and Animation II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Animation + Extended Practicum in Animation First Time Taken: 13008455 (3 credit ts) Second Time Taken: 13008465 (3 credit ts)	Prerequisites: Animation I and Animation II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Commercial Photography First Time Taken: 13009250 (2 credit ts) Second Time Taken: 13009260 (2 credit ts)	Prerequisites: Commercial Photography I and Commercial Photography I Lab along with teacher recommendation Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Commercial Photography + Extended Practicum in Commercial Photography First Time Taken: 13009255 (3 credit ts) Second Time Taken: 13009265 (3 credit ts)	Prerequisites: Commercial Photography I and Commercial Photography I Lab along with teacher recommendation Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Fashion Design First Time Taken: 13009500 (2 credit ts) Second Time Taken: 13009510 (2 credit ts) <i>Continued on next page</i>	Prerequisites: Fashion Design II and Fashion Design II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Arts, Audio Visual Technology and Communication career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Graphic Design and Interactive Media

Arts, Audio Visual Technology and Communication Career Cluster

Statewide Program of Study: Graphic Design and Interactive Media

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Fashion Design + Extended Practicum in Fashion First Time Taken: 13009505 (3 credit ts) Second Time Taken: 13009515 (3 credit ts)	Prerequisites: Fashion Design I and Fashion Design II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Graphic Design and Illustration First Time Taken: 13009000 (2 credit ts) Second Time Taken: 13009010 (2 credit ts)	Prerequisites: Graphic Design and Illustration II and Graphic Design and Illustration II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Graphic Design and Illustration + Extended Practicum in Graphic Design and Illustration First Time Taken: 13009005 (3 credit ts) Second Time Taken: 13009015 (3 credit ts)	Prerequisites: Graphic Design and Illustration II and Graphic Design and Illustration II Lab Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 1270121 (2 credit ts)	Prerequisites: at least one level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credit ts)	Prerequisites: at least one level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Arts, Audio Visual Technology and Communication career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Graphic Design and Interactive Media

Business, Marketing, and Finance Career Cluster

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. This career cluster includes occupations ranging from business owner and entrepreneur to accountant, retail manager, and market analyst.

Statewide Program of Study: **Business Management**

The Business Management program of study focuses on occupational and educational opportunities associated with planning, directing, and coordinating the administrative services and operations of an organization. It includes formulating policies, managing daily operations, and allocating the use of materials and human resources. This program of study also introduces students to mathematical modeling tools and organizational evaluation methods.



Secondary Courses for High School Credit

- | | |
|---------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Business, Marketing, and Finance 166464 Business Information Management I 1668668 |
| Level 2 | <ul style="list-style-type: none"> Business Information Management II 1676 |
| Level 3 | <ul style="list-style-type: none"> Business Management 1674 |
| Level 4 | <ul style="list-style-type: none"> Practicum in Business Management 1688 |

Aligned Advanced Academic Courses

AP or I	AP Microeconomics AP Statistics	IB Economics SL IB Economics HL
---------	------------------------------------	------------------------------------

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

- | | |
|--|---|
| Work-Based Learning Activities | <ul style="list-style-type: none"> Intern at local business in the HR department Shadow the COO of a local business or chamber of commerce |
| Expanded Learning Opportunities | <ul style="list-style-type: none"> Participate in BPA, DECA, FBLA, or related UIL events Explore student membership in related professional organizations |

Aligned Industry-Based Certifications

- Microsoft Office Specialist: Microsoft Access Expert (Access 2019)
- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Microsoft Office Specialist: Microsoft Word Expert (Word 2019)



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

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Associate Degrees

- Business Administration and Management
- Human Resources Management



Bachelor's Degrees

- Business Analytics
- Accounting and Business

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Organizational Leadership

Additional Stackable IBCs/Licensures

- Professional Certificate in Team Leadership
- Property Tax Professionals



Example Aligned Occupations

First-Line Supervisors of Administrative Support Workers
Median Wage: \$59,585
Annual Openings: 13,885
10-Year Growth: 9%

Human Resources Specialists
Median Wage: \$61,278
Annual Openings: 6,239
10-Year Growth: 23%

General and Operations Managers
Median Wage: \$83,220
Annual Openings: 25,450
10-Year Growth: 23%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study/additional-resources>



Business, Marketing, and Finance Career Cluster

Statewide Program of Study: *Business Management*

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Business, Marketing, and Finance* 13011200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Business Information Management I* 13011400 (1 credit)	Prerequisites: None Recommended Corequisites: Business Information Management Lab Recommended Prerequisites: Touch System Data Entry Recommended Corequisites: None	
Business Information Management I + Business Lab* 13011410 (2 credits)	Prerequisites: None Recommended Corequisites: Business Information Management Lab Recommended Prerequisites: Touch System Data Entry Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Virtual Business* 13012000 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Touch System Data Entry Recommended Corequisites: None	
Business Law 13011700 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Business Information Management II 13011500 (1 credit)	Prerequisites: Business Information Management I Corequisites: None Recommended Prerequisites: Touch System Data Entry Recommended Corequisites: Business Information Management Lab	
Business Information Management II + Business Lab 13011510 (2 credits)	Prerequisites: Business Information Management I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: BIM I or BIM II	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Business Management 13012100 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Global Business 13011800 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Human Resources Management* 13011900 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Business, Marketing, and Finance** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/de>

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Business Management



Business, Marketing, and Finance Career Cluster

Statewide Program of Study: *Business Management*

Course Information

Course	Prerequisites Corequisites	Career Clusters
Statistics and Business Decision Making* 13016900 (1 credit)	Prerequisites: Algebra II Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Business Management* First Time Taken: 13012200 (2 credits) Second Time Taken: 13012210 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Touch System Data Entry and Business Management or Business Information Management I Recommended Corequisites: None	
Practicum in Business Management + Extended Practicum in Business Management* First Time Taken: 13012205 (3 credits) Second Time Taken: 13012215 (3 credits)	Prerequisites: None Corequisites: Practicum in Business Management Corequisites: Extended Practicum in Business Information Management I Recommended Prerequisites: Touch System Data Entry and Business Management or Business Information Management I Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a Career and Technical Education program of study Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: at least one Level 2 or Higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: at least one Level 2 or Higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Business, Marketing, and Finance** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/de>

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Business, Marketing, and Finance Career Cluster

Revised – March 2024

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. This career cluster includes occupations ranging from business owner and entrepreneur, to accountant, retail manager and market analyst.

Statewide Program of Study: **Accounting and Financial Services**

The Accounting and Financial Services program of study focuses on occupational and educational opportunities associated with examining, analyzing, and interpreting financial records. It includes exploration of financial services, preparing financial statements, auditing financial statements prepared by others, and interpreting accounting records. This program of study also introduces students to mathematical modeling tools.

Secondary Courses for High School Credit



- Level 1**
- Principles of Business, Marketing, and Finance **1664**
 - Business Information Management I **1668**

- Level 4**
- Practicum in Business Management **1688**

Aligned Advanced Academic Courses

AP or IB IB Mathematics Analysis and Approaches SL
IB Mathematics Analysis and Approaches HL

Dual Credit Dual credit offerings will vary by Local Educational Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern with a public certified accountant (CPA) at a local business
- Intern with a city or county auditor's office
- Shadow a financial advisor as an intern at an investment company

Expanded Learning Opportunities

- Participate in BPA, DECA, or FBLA
- Explore student membership in professional organizations such as AICPA, CIMA, or TXCPA

Aligned Industry-Based Certifications

- Microsoft Office Specialist: Microsoft Excel Expert (Excel 2019)
- Microsoft Office Specialist: Microsoft Access Expert (Access 2019)
- Volunteer Income Tax Assistance/Tax Counseling Certification: Volunteer for Elderly



Successful completion of the Accounting and Financial Services program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Associate Degrees

- Accounting
- Bookkeeping

Bachelor's Degrees

- Accounting
- Banking and Financial Support Services

Master's, Doctoral, and Professional Degrees

- Business Administration and Management
- Finance

Additional Stackable IBCs/Licensures

- Project Management Professional
- Property Tax Consultants Service Contract Providers



Example Aligned Occupations

Tax Preparers

Median Wage: \$56,956
Annual Openings: 898
10-Year Growth: 14%

Accountants and Auditors

Median Wage: \$78,022
Annual Openings: 12,989
10-Year Growth: 20%

Personal Financial Advisors

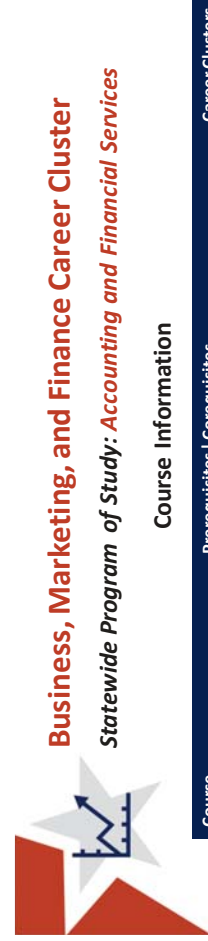
Median Wage: \$77,605
Annual Openings: 1,877
10-Year Growth: 21%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Business, Marketing, and Finance Career Cluster

Statewide Program of Study: Accounting and Financial Services

Course Information

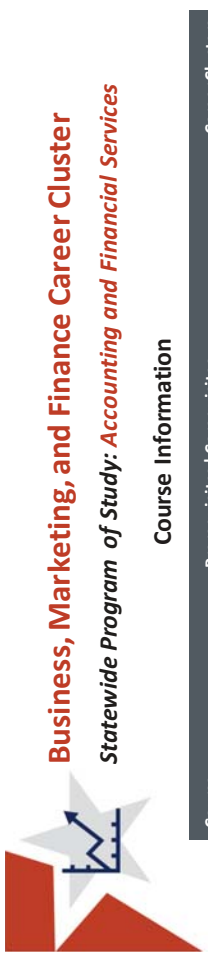
Course	Prerequisites Corequisites	Career Clusters
Principles of Business, Marketing, and Finance 13011200 (1 credit)	Prerequisites: None Recommended Prerequisites: None Recommended Corequisites: None	  
Money Matters 13016200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	
Business Information Management I 13011400 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Touch System Data Entry Recommended Corequisites: Business Lab	  
Business Information Management I + Business Lab 13011410 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: Business Information Management I or Business Information Management II	  
Course	Prerequisites Corequisites	Career Clusters
Banking and Financial Services 13016300 (0.5 credit)	Prerequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	
Accounting I 13016600 (1 credit)	Prerequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	
Financial Mathematics* 13018000 (1 credit)	Prerequisites: Algebra I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing Recommended Corequisites: None	   
Course	Prerequisites Corequisites	Career Clusters
Insurance Operations* 13016500 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	
Accounting II 13016700 (1 credit)	Prerequisites: Accounting I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Financial Analysis* 13016800 (1 credit)	Prerequisites: Accounting I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Business, Marketing, and Finance** career cluster, contact cta@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Texas Education Agency

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Business, Marketing, and Finance Career Cluster

Statewide Program of Study: Accounting and Financial Services

Course Information

Course	Prerequisites Corequisites	Career Clusters
Securities and Investments 13016400 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	  
Practicum in Business Management* First Time Taken: 13012200 (2 credits) Second Time Taken: 13012210 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Touch System Data Entry and Business Management or Business Information Management II Recommended Corequisites: None	
Practicum in Business Management + Extended Practicum in Business Management* First Time Taken: 13012205 (3 credits) Second Time Taken: 13012215 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Business Information Management, Touch System Data Entry and Business Management or Business Information Management I Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a career and technical education (CTE) program of study. Recommended Corequisites: None	   
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: at least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	    
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: at least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	    

* Indicates course is included in more than one program of study.

For additional information on the **Business, Marketing, and Finance** career cluster, contact cta@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Education and Training Career Cluster

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. This Career Cluster includes a diverse spectrum of occupations, ranging from teaching assistant, classroom teacher, to school administrator.

Statewide Program of Study: Teaching and Training

The Teaching and Training program of study focuses on occupational and educational opportunities associated with careers related to teaching, instructing, and creating instructional and enrichment materials. The program of study includes recognizing a variety of student groups and their corresponding needs, identifying processes for developing curriculum and coordinating educational content, and coaching groups and individuals.



Secondary Courses for High School Credit

- Level 1**
- Principles of Education and Training **2220**
 - Principles of Human Services **1602**

- Level 2**
- Child Development **1608**

- Level 3**
- Instructional Practices **2221**

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Educational Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Serve as a camp counselor to learn mentoring, facilitation, and lesson planning skills
- Volunteer in a tutoring center to learn lesson planning and skills assessment

Expanded Learning Opportunities

- Participate in FCCLA
- Participate in TAFE

Aligned Industry-Based Certifications

- Educational Aide I**



Successful completion of the Teaching and Training Program of Study will fulfill requirements of the Public Service endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Teacher Apprentice

Associate Degrees

- Adult and Continuing Education and Teaching
- Educational/Instructional Technology

Bachelor's Degrees

- Elementary Education and Teaching
- Secondary Education and Teaching

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Curriculum and Instruction

Additional Stackable IBCs/Licensures

- Generalist, Grades EC-4



Example Aligned Occupations

Teaching Assistants, Except Postsecondary

Median Wage: \$28,066
Annual Openings: 10,000
10-Year Growth: 15%

Secondary School Teachers, Except Special Education and CTE

Median Wage: \$61,035
Annual Openings: 8,288
10-Year Growth: 14%

Education Administrators, Kindergarten through Secondary

Median Wage: \$81,976
Annual Openings: 2,676
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Education and Training Career Cluster

Statewide Program of Study: Teaching and Training

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Education and Training 13014200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Human Services* 13024200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Human Growth and Development* 13014300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Education and Training Recommended Corequisites: None	
Child Development* 13024700 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services or Principles of Education and Training Recommended Corequisites: None	
Communication and Technology in Education NI300510 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Education and Training Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Instructional Practices 13014400 (2 credits)	Prerequisites: One credit from Education and Training career cluster Corequisites: None Recommended Prerequisites: Principles of Education and Training, Human Growth and Development, or Child Development Recommended Corequisites: None	

*Indicates course is included in more than one program of study.

Teaching and Training

For additional information on the Education and Training career cluster, contact cttc@tea.texas.gov or visit <https://tea.texas.gov/cttc>

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Education and Training Career Cluster

Statewide Program of Study: Teaching and Training

Course Information

Course	Prerequisites Corequisites	Career Clusters
Practicum in Education and Training First Time Taken: 13014500 (2 credits) Second Time Taken: 13014510 (2 credits)	Prerequisites: Instructional Practices Corequisites: None Recommended Prerequisites: Principles of Education and Training, Human Growth and Development, and Child Development Recommended Corequisites: None	
Practicum in Education and Training + Extended Practicum in Education and Training First Time Taken: 13014505 (3 credits) Second Time Taken: 13014515 (3 credits)	Prerequisites: Instructional Practices Corequisites: Practicum in Education and Training Recommended Prerequisites: Principles of Education and Training and Human Growth and Development Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Career Preparation for Programs of Study First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career and Technical Education Project-Based Capstone First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

*Indicates course is included in more than one program of study.

Teaching and Training

For additional information on the Education and Training career cluster, contact cttc@tea.texas.gov or visit <https://tea.texas.gov/cttc>

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Education and Training Career Cluster

The Education and Training career cluster focuses on planning, managing, and providing education and training services and related learning support services. This career cluster includes occupations ranging from teaching assistant and classroom teacher to school administrator.

Statewide Program of Study: Early Learning

The Early Learning program of study focuses on occupational and educational opportunities associated with instructing and supporting preschool and early elementary school students. This program of study addresses social, physical, and intellectual growth and skills necessary for planning, directing, and coordinating activities for young children.



Secondary Courses for High School Credit

Level 1 • Principles of Human Services 1602

Level 2 • Child Development 1608

Level 3 • Child Guidance 1616

Level 4 • Practicum in Early Learning 1614

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Educational Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Serve as a summer camp counselor for pre-school or kindergarten students
- Serve as a teaching assistant at a lab school or daycare

Expanded Learning Opportunities

- Participate in FCCLA
- Participate in TAFE

Aligned Industry-Based Certifications

- **Early Childhood Education and Care - Basic**



Successful completion of the Early Learning program of study will fulfill requirements of the Public Service endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Child Care Development Specialist

Associate Degrees

- Teacher Education, Multiple Levels
- Child Care Provider/Assistant

Bachelor's Degrees

- Elementary Education and Teaching
- Early Childhood and Family Studies

Master's, Doctoral, and Professional Degrees

- Educational Leadership and Administration, General
- Education, General

Additional Stackable IBCs/Licensures

- Certified Child Care Professional



Example Aligned Occupations

Child Care Workers

Median Wage: \$23,528
Annual Openings: 12,823
10-Year Growth: 17%

Preschool Teachers, Except Special Education

Median Wage: \$34,127
Annual Openings: 4,148
10-Year Growth: 26%

Elementary School Teachers, Except Special Education

Median Wage: \$61,389
Annual Openings: 11,712
10-Year Growth: 13%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Education and Training Career Cluster

Statewide Program of Study: Early Learning

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Education and Training 13014200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Human Services* 13024200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 1

Course	Prerequisites Corequisites	Career Clusters
Child Development* 13024700 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services or Principles of Education and Training Recommended Corequisites: None	

Level 2

Child Development Associate (CDA) Foundations* N1300500 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Education and Training Principles of Human Services Recommended Corequisites: None	
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Speech and Language Development* N1302098 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Health Science, Principles of Health Science, Anatomy and Physiology, and Introduction to Speech Pathology and Audiology Recommended Corequisites: None	
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Course	Prerequisites Corequisites	Career Clusters
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Child Guidance 13024800 (2 credits)	Prerequisites: Child, Development, or Child Development Associate Foundations Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
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Speech and Communication Disorders* N1302099 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Health Science, Anatomy and Physiology, Introduction to Speech-Language Pathology and Audiology, Speech and Language Development, and Human Growth and Development Recommended Corequisites: None	
--	--	--

* Indicates course is included in more than one program of study.

For additional information on the Education and Training career cluster,

contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Education and Training Career Cluster

Statewide Program of Study: Early Learning

Course Information

Course	Prerequisites Corequisites	Career Clusters
Practicum in Early Learning First Time Taken: 13014520 (2 credits) Second Time Taken: 13014530 (2 credits)	Prerequisites: Child Guidance Corequisites: None Recommended Prerequisites: Child Development or Child Development Associate Foundations Recommended Corequisites: None	

Level 4

Practicum in Early Learning+ Extended Practicum in Early Learning First Time Taken: 13014525 (3 credits) Second Time Taken: 13014535 (3 credits)	Prerequisites: Child Guidance Corequisites: Practicum in Early Learning Recommended Prerequisites: Child Development or Child Development Associate Foundations Recommended Corequisites: None	
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Career Preparation for Programs of Study First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
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Career Preparation for Programs of Study+ Extended Career Preparation First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
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Career and Technical Education Project-Based Capstone First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
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* Indicates course is included in more than one program of study.

For additional information on the Education and Training career cluster,

contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Early Learning



Human Services Career Cluster

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. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Statewide Program of Study: *Family and Community Services*

The Family and Community Services program of study focuses on occupational and educational opportunities associated with social services, including child and human development and consumer sciences. This program of study includes managing social and community services, managing family and consumer sciences, and understanding career paths in social work or therapy for children, families, or school communities.



Secondary Courses for High School Credit

Level 1 • Principles of Human Services 1602

Level 2 • Child Development 1608

Level 4 • Practicum in Human Services 1618

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Educational Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Participate in a community health worker apprenticeship at a community health center
- Shadow a social worker in a community non-profit organization to learn about providing social and community services

Expanded Learning Opportunities

- Participate in FCCLA

Aligned Industry-Based Certifications

- **Community Health Workers**



Successful completion of the Family and Community Services program of study will fulfill requirements of the Public Services endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Community Health Worker Apprentice

Associate Degrees

- Social Work
- Human Development and Family Studies

Bachelor's Degrees

- Social Work
- Human Development and Family Studies

Master's, Doctoral, and Professional Degrees

- Mental Health Counseling
- Marriage and Family Therapy

Additional Stackable IBCs/Licensures

- Certified Diabetes Educator



Example Aligned Occupations

Community Health Workers

Median Wage: \$39,520
Annual Openings: 501
10-Year Growth: 25%

Social and Human Service Assistants

Median Wage: \$38,442
Annual Openings: 3,298
10-Year Growth: 21%

Child, Family, and School Social Workers

Median Wage: \$49,398
Annual Openings: 2,342
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Human Services Career Cluster

Statewide Program of Study: Family and Community Services

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Human Services* 13024200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	 
Principles of Community Services* N1302542 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	 
Professional Communications 13009900 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	   
Dollars and Sense* 13024300 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Human Growth and Development* 13014300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Education and Training or Principles of Human Services Recommended Corequisites: None	 
Child Development* 13024700 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Education and Training or Principles of Human Services Recommended Corequisites: None	 
Child Development Associate (CDA) Foundations N1300500 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services or Principles of Education and Training Recommended Corequisites: None	 
Lifetime Nutrition and Wellness* 13024500 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services, Principles of Hospitality and Tourism, or Principles of Health Science Recommended Corequisites: None	 

Continued on next page

* Indicates course is included in more than one program of study.
For additional information on the Human Services career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Human Services Career Cluster

Statewide Program of Study: Family and Community Services

Course Information

Level 2

Course	Prerequisites Corequisites	Career Clusters
Interpersonal Studies* 13024400 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services, Principles of Hospitality and Tourism, Principles of Health Science, or Principles of Education and Training Recommended Corequisites: None	 
Social and Community Services N1302543 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Community Services Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing and Finance Recommended Corequisites: None	    

Level 3

Course	Prerequisites Corequisites	Career Clusters
Family and Community Services* 13024900 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	
Counseling and Mental Health* 13024600 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	 

Level 4

Course	Prerequisites Corequisites	Career Clusters
Career and Technical Education Project-Based Capstone First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	    

Continued on next page

* Indicates course is included in more than one program of study.

For additional information on the Human Services career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Human Services Career Cluster

Statewide Program of Study: Family and Community Services

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Human Services* First Time Taken: 13025000 (2 credits) Second Time Taken: 13025010 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Human Services + Extended Practicum in Human Services* First Time Taken: 13025005 (3 credits) Second Time Taken: 13025015 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	   
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	   
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE program of study Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	    
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE program of study Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	    

* Indicates course is included in more than one program of study.
For additional information on the Human Services career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Hospitality and Tourism Career Cluster

The Hospitality and Tourism career cluster focuses on the management, marketing, and operations of restaurants, lodging, attractions, recreation events, and travel-related services. This career cluster includes occupations ranging from reservation and transportation ticket agent to event planner and general manager.

Statewide Program of Study: Culinary Arts

The Culinary Arts program of study focuses on occupational and educational opportunities associated with the planning, directing, or coordinating activities of a food and beverage organization or department. This program of study includes opportunities involved in directing and participating in the preparation of food.



Secondary Courses for High School Credit

Level 1 • Introduction to Culinary Arts **1610**

Level 2 • Culinary Arts **1612**

Level 3 • Advanced Culinary Arts **1613**

Aligned Advanced Academic Courses

AP or IB AP Chemistry
IB Chemistry SL

Dual Credit Dual credit offerings will vary by Local Educational Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow a director of a non-profit that produces and delivers food for communities in need
- Intern at a catering company and learn about food production for large-scale events
- Work part-time in a restaurant as a line cook or chef

Expanded Learning Opportunities

- Participate in FCCLA
- Participate in SkillsUSA
- Participate in American Culinary Association or the Texas Restaurant Association

Aligned Industry-Based Certifications

- Culinary Meat Selection and Cookery Certification
- Food Safety Science



Successful completion of the Culinary Arts program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Associate Degrees

- Culinary Arts
- Baking and Pastry Arts

Bachelor's Degrees

- Hotel/Motel Administration/Management
- Culinary Science

Master's, Doctoral, and Professional Degrees

- Organizational Leadership
- Foodservice Systems Administration/Management

Additional Stackable IBCs/Licensures

- Food Manager License



Example Aligned Occupations

Bakers

Median Wage: \$29,466
Annual Openings: 2,942
10-Year Growth: 26%

Chefs and Head Cooks

Median Wage: \$44,761
Annual Openings: 950
10-Year Growth: 37%

General and Operations Managers

Median Wage: \$83,220
Annual Openings: 25,450
10-Year Growth: 23%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

 Hospitality and Tourism Career Cluster Statewide Program of Study: Culinary Arts			
Course Information			
Level 1	Course	Prerequisites Corequisites	Career Clusters
	Principles of Hospitality and Tourism 13022200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Introduction to Culinary Arts 13022550 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Hospitality and Tourism Recommended Corequisites: None	
Level 2	Course	Prerequisites Corequisites	Career Clusters
	Culinary Arts 13022600 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Hospitality and Tourism Recommended Corequisites: None	
	Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing and Finance Recommended Corequisites: None	    
	Food Technology and Safety* 13001300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	 
	Foundations of Restaurant Management N1302268 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Hospitality and Tourism Recommended Corequisites: None	
Level 3	Course	Prerequisites Corequisites	Career Clusters
	Advanced Culinary Arts 13022650 (2 credits)	Prerequisites: Culinary Arts Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Introduction to Event and Meeting Planning* N1302269 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Hospitality and Tourism, Hotel Management and/or Travel and Tourism Management Recommended Corequisites: None	
	Tourism Marketing Concepts and Applications* N1302270 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisite: Principles of Hospitality and Tourism Recommended Corequisites: None	 
	Food Processing + Agricultural Laboratory and Field Experience* 13001410 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Food Technology and Safety Recommended Corequisites: None	 
* Indicates course is included in more than one program of study.			

For additional information on the Hospitality and Tourism career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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 Hospitality and Tourism Career Cluster Statewide Program of Study: Culinary Arts			
Course Information			
Level 4	Course	Prerequisites Corequisites	Career Clusters
	Food Science* 13023000 (1 credit)	Prerequisites: Three units of science, including Chemistry and Biology Corequisites: None Recommended Prerequisites: Principles of Hospitality and Tourism Recommended Corequisites: None	  
	Practicum in Entrepreneurship* 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II Recommended Corequisites: None	    
	Practicum in Culinary Arts First Time Taken: 13022700 (2 credits) Second Time Taken: 13022710 (2 credits)	Prerequisites: Culinary Arts Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Practicum in Culinary Arts + Extended Practicum in Culinary Arts First Time Taken: 13022705 (3 credits) Second Time Taken: 13022715 (3 credits)	Prerequisites: Culinary Arts Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Practicum in Event and Meeting Planning* N1302275 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Introduction to Event Meeting and Planning and Hospitality Services Recommended Corequisites: None	
	Continued on next page		
* Indicates course is included in more than one program of study.			

For additional information on the Hospitality and Tourism career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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 Hospitality and Tourism Career Cluster Statewide Program of Study: Culinary Arts			
Course Information			
Level 4	Course	Prerequisites Corequisites	Career Clusters
	Practicum in Hospitality Services* First Time Taken: 13022900 (2 credits) Second Time Taken: 13022910 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Hospitality Services Recommended Corequisites: None	
	Practicum in Hospitality Services + Extended Practicum in Hospitality Services* First Time Taken: 13022905 (3 credits) Second Time Taken: 13022915 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Hospitality Services Recommended Corequisites: None	
	Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one level 2 or higher career technical education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	       
	Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one level 2 or higher career technical education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	       

* Indicates course is included in more than one program of study.

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Health Science Career Cluster

Revised – March 2024



The Health Science career cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: **Health Informatics**

The Health Informatics program of study focuses on occupational and educational opportunities associated with the management and use of patient information in the healthcare field. This program of study includes exploration of computerized healthcare systems and the process of creating and maintaining hospital and patient records in accordance with regulatory requirements of the healthcare system. Students will also practice writing and interpreting medical reports.



Secondary Courses for High School Credit

- | | |
|---------|--|
| Level 1 | <ul style="list-style-type: none">Principles of Health Science 1646Business Information Management I 1668 |
| Level 2 | <ul style="list-style-type: none">Medical Terminology 1644 |
| Level 3 | <ul style="list-style-type: none">Health Science Theory 1648 |

Aligned Advanced Academic Courses

AP or AP Statistics

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern with a medical records specialist or health services manager
- Job shadow a medical services manager to understand how services and facilities are managed

Expanded Learning Opportunities

- Participate in HOSA, DECA, SkillsUSA, or BPA

Aligned Industry-Based Certifications

- Certified Billing and Coding Specialist (CBCS)



Successful completion of the Health Informatics program of study will fulfill requirements of the Public Services endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Medical Coder

Associate Degrees

- Health Information/Medical Records Technology
- Medical Assisting

Bachelor's Degrees

- Nursing Administration
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Nursing Administration
- Hospital and Health Care Facilities Administration

Additional Stackable IBCs/Licensures

- Consumer Health Information Specialization – Level I



Example Aligned Occupations

Medical Secretaries/ Administrative Assistants

Median Wage: \$36,994
Annual Openings: 10,505
10-Year Growth: 21%

Medical Records Specialists

Median Wage: \$39,408
Annual Openings: 2,763
10-Year Growth: 18%

Medical and Health Services Managers

Median Wage: \$102,937
Annual Openings: 4,787
10-Year Growth: 43%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study/additional-resources>



Health Science Career Cluster

Statewide Program of Study: Health Informatics

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Health Science* 13020200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Principles of Health Informatics NI 302108 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Business Information Management I 13011400 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Touch Systems Data Entry Recommended corequisites: Business Lab	
Business Information Management I + Business Lab 13011410 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	

Level 1

Level 2

Course	Prerequisites Corequisites	Career Clusters
Medical Terminology* 13020300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Public Health TBD	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended corequisites: TBD	
Medical Intervention Evaluation and Research NI 302125 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Health Informatics or Principles of Health Science Recommended corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
Health Informatics 13020960 (1 credit)	Prerequisites: Medical Terminology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Healthcare Administration and Management 13020962 (1 credit)	Prerequisites: Medical Terminology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Health Science Theory* 13020400 (1 credit)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended corequisites: Health Science Clinical	
Health Science Theory + Health Science Clinical* 13020410 (2 credits)	Prerequisites: Biology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Health Science career cluster**, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Health Science Career Cluster

Statewide Program of Study: Health Informatics

Course Information

Course	Prerequisites Corequisites	Career Clusters
World Health and Emerging Technologies 13020900 (1 credit)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Mathematics for Medical Professionals* 13020970 (1 credit)	Prerequisites: Geometry and Algebra I Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Medical Billing and Coding 13020964 (1 credit)	Prerequisites: Medical Terminology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Practicum in Health Science* First Time Taken: 13020500 (2 credits) Second Time Taken: 13020510 (2 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Practicum in Health Science + Extended Practicum in Health Science* First Time Taken: 13020505 (3 credits) Second Time Taken: 13020515 (3 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	

Level 4

Career Preparation for Programs of Study* (2 credits)	Prerequisites: At least one level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* (3 credits)	Prerequisites: At least one level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	

Career and Technical Education Project-Based Capstone* (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended corequisites: None	
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* Indicates course is included in more than one program of study.

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Health Informatics

Health Informatics



Health Science Career Cluster

The Health Science career cluster focuses on planning, managing, and providing therapeutic services, diagnostics services, health informatics, support services, and biotechnology research and development. This career cluster includes occupations ranging from medical assistant, registered nurse, and physical therapist to forensic science technician and athletic trainer.

Statewide Program of Study: *Diagnostic and Therapeutic Services*

The Diagnostic and Therapeutic Services program of study focuses on occupational and educational opportunities associated with diagnosing and treating acute, episodic, or chronic illness independently or as part of a healthcare team. This program of study includes exploration of patient treatment and rehabilitative programs that help build or restore daily living skills to persons with disabilities or developmental delays.



Secondary Courses for High School Credit

- | | |
|----------------|---|
| Level 1 | • Principles of Health Science 1646 |
| Level 2 | • Medical Terminology 1644 |
| Level 3 | • Anatomy and Physiology 1654
• Health Science Theory 1648 |
| Level 4 | • Pharmacology 1656
• Practicum in Health Science 1650 (MA) 1652 (EMT) |

Aligned Advanced Academic Courses

AP or IB	AP Biology IB Biology SL IB Biology HL	AP Chemistry IB Chemistry SL IB Chemistry HL
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Dual Credit Dual credit offerings will vary based on Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Intern with a medical assistant at a community clinic, hospital, assisted living or long-term care facility • Participate in job shadowing experiences such as Emergency Medical Services (EMS) ride along, hospital/clinical job shadow
Expanded Learning Opportunities	• Participate in Health Occupation Students of America (HOSA) or SkillsUSA • Participate in Advanced Medical Ambulance Bus (AMBUS) event or Community Emergency Response Team (CERT) event

Aligned Industry-Based Certifications

- Emergency Medical Technician–Basic
- Medical Assistant
- Pharmacy Technician



Successful completion of the Diagnostic and Therapeutic Services program of study will fulfill requirements of the Public Service endorsement or STEM endorsement if the math and science requirements are met.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Medical Assistant

Associate Degrees

- Emergency Medical Technology
- Radiologic Technology/Science

Bachelor's Degrees

- Emergency Medical Technology
- Medical Insurance Coding

Master's, Doctoral, and Professional Degrees

- Medicine
- Occupational Therapy

Additional Stackable IBCs/Licensures

- Registered Diagnostic Medical Sonographer



Example Aligned Occupations

Medical Assistants

Median Wage: \$36,834
Annual Openings: 11,638
10-Year Growth: 29%

Dental Hygienists

Median Wage: \$79,663
Annual Openings: 1,352
10-Year Growth: 32%

Physician Assistants

Median Wage: \$127,332
Annual Openings: 974
10-Year Growth: 41%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Health Science Career Cluster

Statewide Program of Study: **Diagnostic and Therapeutic Services**

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Health Science* 13020200 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Principles of Diagnostic Healthcare N1302106 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Principles of Therapeutic Healthcare N1302110 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Principles of Allied Health* N1302105 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Introduction to Dental Science N1302101 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Introduction to Imaging Technology N1302102 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Introduction to Pharmacy Science N1302103 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	



Health Science Career Cluster

Statewide Program of Study: **Diagnostic and Therapeutic Services**

Course Information

Course	Prerequisites Corequisites	Career Clusters
Medical Terminology* 13020300 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Allied Health Therapeutic Services* N1302120 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of Allied Health Recommended corequisites: None	
Dental Anatomy and Physiology N1302122 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Biology and Introduction to Dental Science Recommended corequisites: None	
Disaster Response N1303011 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended corequisites: None	
Imaging Technology I N1302123 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Introduction to Imaging Technology Recommended corequisites: None	
Pharmacy I N1302127 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Biology, Introduction to Pharmacy Science, or Principles of Health Science Recommended corequisites: None	

* Indicates course is included in more than one program of study.

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TEA Texas Education Agency

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Health Science Career Cluster

Statewide Program of Study: **Diagnostic and Therapeutic Services**

Course Information

Course	Prerequisites Corequisites	Career Clusters
Anatomy and Physiology* 13020600 (1 credit)	Prerequisites: One credit in Biology and one credit in Chemistry, Integrated Physics and Chemistry, or Physics Corequisites: None Recommended prerequisites: None Recommended corequisites: A course from the Health Science career cluster	
Medical Microbiology* 13020700 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Medical Assistant 13021015 (1 credit)	Prerequisites: Anatomy and Physiology (maybe a corequisite) Corequisites: Anatomy and Physiology (may be a prerequisite) Recommended prerequisites: Medical Terminology Recommended corequisites: None	
Emergency Medical Technician–Basic N1303015 (2 credits)	Prerequisites: Biology Corequisites: None Recommended prerequisites: Principles of Law, Public Safety, Corrections, and Security, and Anatomy and Physiology Recommended corequisites: None	
Clinical Ethics* N1302121 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Principles of Nursing Science and Science of Nursing Recommended corequisites: None	
Dental Equipment and Procedures N1302130 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Introduction to Dental Science and Dental Anatomy and Physiology Recommended corequisites: None	
Health Science Theory* 13020400 (1 credit)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended prerequisites: Medical Terminology Recommended corequisites: Health Science Clinical	
Health Science Theory+ Health Science Clinical* 13020410 (2 credits)	Prerequisites: One credit in Biology and at least one credit in a course from the Health Science career cluster Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Respiratory Therapy I 13021120 (1 credit)	Prerequisites: At least one credit in a course from the Health Science career cluster Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Imaging Technology II N1302131 (2 credits)	Prerequisites: Imaging Technology I Corequisites: None Recommended prerequisites: Introduction to Imaging Technology Recommended corequisites: None	
Pharmacy II 13021030 (2 credits)	Prerequisites: One credit in Biology, one credit in Chemistry, and Pharmacy I Corequisites: None Recommended prerequisites: Algebra I, Introduction to Pharmacy Science, and Pharmacy I Recommended corequisites: None	

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Health Science Career Cluster

Statewide Program of Study: **Diagnostic and Therapeutic Services**

Course Information

Course	Prerequisites Corequisites	Career Clusters
Mathematics for Medical Professionals* 13020970 (1 credit)	Prerequisites: Geometry and Algebra II Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Pathophysiology* 13020800 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a level 2 or higher course from the Health Science career cluster Corequisites: None Recommended prerequisites: Anatomy and Physiology Recommended corequisites: None	
Pharmacology* 13020950 (1 credit)	Prerequisites: One credit in Biology, one credit in Chemistry, and at least one credit in a level 2 or higher course from the Health Science career cluster Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Respiratory Therapy II 13021122 (1 credit)	Prerequisites: Respiratory Therapy I Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Optical Technician N1302126 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: Biology or Principles of Health Science Recommended corequisites: None	
Sterile Processing TBD	Prerequisites: TBD Corequisites: TBD Recommended prerequisites: TBD Recommended corequisites: TBD	
Practicum in Health Science* First Time Taken: 13020500 (2 credits) Second Time Taken: 13020510 (2 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Practicum in Health Science + Extended Practicum in Health Science* First Time Taken: 13020505 (3 credits) Second Time Taken: 13020515 (3 credits)	Prerequisites: Health Science Theory and Biology Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study (2 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation (3 credits)	Prerequisites: At least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

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Diagnostic and Therapeutic Services

Diagnostic and Therapeutic Services

Diagnostic and Therapeutic Services



Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: Information Technology Support and Services

The Information Technology Support and Services program of study focuses on occupational and educational opportunities associated with administering, testing, and implementing computer databases and applying knowledge of database management systems. This program of study includes analyzing user requirements, automating or improving existing systems, and reviewing computer system capabilities. It also includes research, design, and testing of computer or computer-related equipment for commercial, industrial, military, or scientific use.



Secondary Courses for High School Credit

Level 1 • Principles of Information Technology 1662

Level 2 • Computer Maintenance 1682

Level 4 • Computer Technician Practicum 1685

Aligned Advanced Academic Courses

AP or IB

AP Computer Science A
AP Computer Science Principles

IB Computer Science SL
IB Computer Science HL

Dual Credit

Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern at a local IT company to develop skills in computer system maintenance and setting up computer equipment
- Shadow a database administrator or computer software or hardware engineer to learn about their day-to-day responsibilities

Expanded Learning Opportunities

- Participate in TSA or SkillsUSA
- Subscribe to industry journals

Aligned Industry-Based Certifications

- Computer Repair Technology - Job Ready
- Business Information Processing

Successful completion of the Information Technology Support and Services program of study will fulfill requirements of the Business and Industry endorsement.



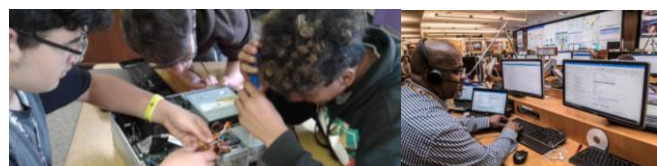
Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Coding Apprenticeship

Associate Degrees

- Computer Science
- Network and System Administration

Bachelor's Degrees

- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Engineering

Master's, Doctoral, and Professional Degrees

- Information Science/Studies
- Electrical and Electronics Engineering

Additional Stackable IBCs/Licensures

- CompTIA Server+



Example Aligned Occupations

Computer User Support Specialists

Median Wage: \$51,411
Annual Openings: 5,757
10-Year Growth: 21%

Computer Network Support Specialists

Median Wage: \$65,646
Annual Openings: 1,634
10-Year Growth: 19%

Computer Hardware Engineers

Median Wage: \$119,662
Annual Openings: 377
10-Year Growth: 14%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Information Technology Career Cluster

Statewide Program of Study: Information Technology Support and Services

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Information Technology* 13027200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Fundamentals of Computer Science* 03580140 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Networking Technologies I (Cisco)* N1302803 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Geographic Information Systems N1302805 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Art, Audio/Video Technology, Principles of Information Technology Technology, or Principles of Technology Recommended Corequisites: None	
Raster Based Geographic Information Systems N1302806 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Geographic Information Systems Recommended Corequisites: None	
Computer Maintenance* 13027300 (1 credit)	Prerequisites: None Corequisites: Computer Maintenance Lab Recommended Prerequisites: Principles of Information Technology Recommended Corequisites: None	
Computer Maintenance + Computer Maintenance Lab* 13027310 (2 credits)	Prerequisites: None Corequisites: Computer Maintenance Recommended Prerequisites: Principles of Information Technology Recommended Corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
Networking Technologies II (Cisco)* N1302804 (1 credit)	Prerequisites: Networking Technologies I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Spatial Technology and Remote Sensing N1302807 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Advanced Cloud Computing* N1302813 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: At least one credit in a Level 2 or higher course in computer science, programming, software development, or networking systems. Recommended Corequisites: None	
IT Troubleshooting N1302815 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Information Technology and Computer Maintenance/Lab Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Information Technology** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Information Technology Career Cluster

Statewide Program of Study: Information Technology Support and Services

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Information Technology** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



[LEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).

Information Technology Support and Services

Information Technology Career Cluster

Statewide Program of Study: Information Technology Support and Services

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Independent Study in Technology Applications First Time Taken: 03580900 (1 credit) Second Time Taken: 03581000 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the Information Technology Career Cluster Recommended Corequisites: None	
Independent Study in Evolving/Emerging Technologies First Time Taken: 03581500 (1 credit) Second Time Taken: 03581600 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the Information Technology Career Cluster Recommended Corequisites: None	
Computer Technician Practicum First Time Taken: 13027500 (2 credits) Second Time Taken: 13027510 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Information Technology, Computer Maintenance Computer Maintenance Lab, Networking, and Networking Lab Recommended Corequisites: None	
Computer Technician Practicum + Extended Computer Technician Practicum First Time Taken: 13027505 (3 credits) Second Time Taken: 13027515 (3 credits)	Prerequisites: None Corequisites: Computer Technician Practicum Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, Computer Maintenance Lab, Networking, and Networking Lab Recommended Corequisites: None	
Practicum in Information Technology* First Time Taken: 13028000 (2 credits) Second Time Taken: 13028010 (2 credits)	Prerequisites: A minimum of two high school information technology (IT) courses Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Information Technology + Extended Practicum in Information Technology First Time Taken: 13028005 (3 credits) Second Time Taken: 13028050 (3 credits)	Prerequisites: Minimum of two high school information technology (IT) courses. Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study First Time Taken: 12701121 (2 credits)	Prerequisites: at least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation First Time Taken: 12701141 (3 credits)	Prerequisites: at least one Level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Information Technology** career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Information Technology Support and Services



Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: Networking Systems

The Networking Systems program of study focuses on 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 includes analysis of data processing challenges to implementing and improving computer systems.



Secondary Courses for High School Credit

Level 1

- Principles of Information Technology 1662

Level 2

- Computer Science I 1679
- Computer Maintenance 1682

Level 3

- Networking 1686
- Networking + Networking Lab 1687

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Education Agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern at a local education, public service, or technology organization to develop skills in installing hardware and software
- Interview a network administrator to learn about their career path and what credentials they earned to be successful in their role

Expanded Learning Opportunities

- Participate in a Hackathon
- Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- Information Technology Specialist: Networking

Successful completion of the Networking Systems program of study will fulfill requirements of the Business and Industry endorsement.



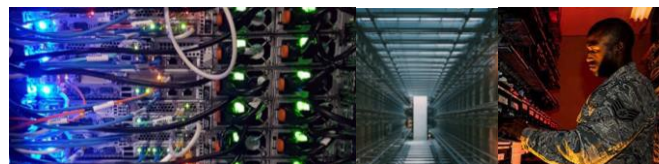
Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Network Engineer Apprenticeship

Associate Degrees

- Computer Systems Networking and Telecommunications
- Network and System Administration

Bachelor's Degrees

- Computer and Information Sciences
- Information Technology

Master's, Doctoral, and Professional Degrees

- Computer Science
- Information Technology

Additional Stackable IBCs/Licensures

- Aruba Certified Mobility Associate (ACMA)



Example Aligned Occupations

Computer Network Support Specialists

Median Wage: \$65,646
Annual Openings: 1,634
10-Year Growth: 19%

Computer Systems Analysts

Median Wage: \$101,716
Annual Openings: 4,985
10-Year Growth: 19%

Network and Computer Systems Administrators

Median Wage: \$85,375
Annual Openings: 2,900
10-Year Growth: 20%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Information Technology Career Cluster

Statewide Program of Study: Networking Systems

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 1	Principles of Information Technology* 13027200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Fundamentals of Computer Science* 03580140 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Level 2	Course	Prerequisites Corequisites	Career Clusters
	Internetworking Technologies I (Cisco)* N1302803 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Computer Science I* 03580200 (1 credit)	Prerequisites: Algebra I or Corequisites: Algebra I Recommended Prerequisites: None Recommended Corequisites: None	
	Computer Maintenance* 13027300 (1 credit)	Prerequisites: None Corequisites: Computer Maintenance Lab Recommended Prerequisites: Principles of Information Technology Recommended Corequisites: None	
	Computer Maintenance + Computer Maintenance Lab* 13027310 (2 credits)	Prerequisites: None Corequisites: Computer Maintenance Recommended Prerequisites: None Recommended Corequisites: None	
	AP Computer Science Principles* A3580300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Algebra I Recommended Corequisites: None	
Level 3	Course	Prerequisites Corequisites	Career Clusters
	Internetworking Technologies II (Cisco)* N1302804 (1 credit)	Prerequisites: Internetworking Technologies I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Advanced Cloud Computing* N1302813 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: At least one credit in a level 2 or higher course in computer science, programming, software development, or networking systems. Recommended Corequisites: None	
	Networking* 13027400 (1 credit)	Prerequisites: None Corequisites: Networking Lab Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab Recommended Corequisites: None	
	Networking + Networking Lab* 13027410 (2 credits)	Prerequisites: None Corequisites: Networking Recommended Prerequisites: Principles of Information Technology, Computer Maintenance, and Computer Maintenance Lab Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

[TEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Key Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).

Information Technology Career Cluster

Statewide Program of Study: Networking Systems

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 4	Independent Study in Technology Applications First Time Taken: 03580900 (1 credit) Second Time Taken: 03581000 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the Information Technology Career Cluster Recommended Corequisites: None	
	Independent Study in Evolving/Emerging Technologies First Time Taken: 03581500 (1 credit) Second Time Taken: 03581600 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: a minimum of one credit from the courses in the Information Technology Career Cluster Recommended Corequisites: None	
	Practicum in Information Technology* First Time Taken: 13028000 (2 credits) Second Time Taken: 13028010 (2 credits)	Prerequisites: A minimum of two high school information technology (IT) courses Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Practicum in Information Technology + Extended Practicum in Information Technology* First Time Taken: 13028005 (3 credits) Second Time Taken: 13028015 (3 credits)	Prerequisites: Minimum of two high school information technology (IT) courses. Corequisites: Practicum in Information Technology Recommended Prerequisites: None Recommended Corequisites: None	
	Career Preparation for Programs of Study First Time Taken: 12701121 (2 credits)	Prerequisites: at least one level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Career Preparation for Programs of Study + Extended Career Preparation First Time Taken: 12701141 (3 credits)	Prerequisites: at least one level 2 or higher Career and Technical Education course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

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Information Technology Career Cluster

Statewide Program of Study: Networking Systems

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 4	Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

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Information Technology Career Cluster

Statewide Program of Study: Networking Systems

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 4	Career and Technical Education Project-Based Capstone* First Time Taken: 12701101 (1 credit)	Prerequisites: None Corequisites: None Recommended prerequisites: None Recommended corequisites: None	

* Indicates course is included in more than one program of study.

[TEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Key Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Notification of Nondiscrimination in Career and Technical Education Programs](#).

Information Technology Career Cluster

The Information Technology (IT) career cluster focuses on the design, development, support, and management of hardware, software, multimedia, and systems integration services. This career cluster includes occupations ranging from Software Developer and Programmer to Cybersecurity Specialists and Network Analysts.

Statewide Program of Study: Cybersecurity

The Cybersecurity program of study focuses on occupational and educational opportunities associated with planning, implementing, upgrading, or monitoring security measures for the protection of computer networks and information. This program of study includes responding to computer security breaches and viruses and administering network security measures.

Secondary Courses for High School Credit

Level 1 • Principles of Information Technology **1662**

Level 2 • Computer Science I **1679**

Level 3 • Networking **1686**
• Networking + Networking Lab **1687**
• AP Computer Science A **1675**

Aligned Advanced Academic Courses

AP or IB AP Computer Science Principles
AP Computer Science A

Dual Credit Dual credit offerings will vary by local education agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern at a local bank, hospital, or government office to develop skills in implementing security measures
- Interview with an information security analyst to learn how they plan for, monitor, and upgrade security measures at their organization

Expanded Learning Opportunities

- Participate in a Hackathon
- Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- **Information Technology Specialist: Networking**



Successful completion of the Cybersecurity program of study will fulfill requirements of the Business and Industry endorsement or the STEM endorsement if the math and science requirements are met.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Examples Postsecondary Opportunities

Associate Degrees

- Computer and Information Systems Security
- Computer Programming

Bachelor's Degrees

- Computer Science
- Computer Software Engineering

Master's, Doctoral, and Professional Degrees

- Computer and Information Systems Security/Auditing/Information Assurance
- Computer Software Engineering

Additional Stackable IBCs/License

- Certified Ethical Hacker (CEH)



Example Aligned Occupations

Computer User Support Specialists

Median Wage: \$51,411
Annual Openings: 5,757
10-Year Growth: 21%

Software Developers

Median Wage: \$111,705
Annual Openings: 15,324
10-Year Growth: 36%

Information Security Analysts

Median Wage: \$110,268
Annual Openings: 1,719
10-Year Growth: 49%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Level 1

Level 1

Level 2

(LEA name) does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [last name], [telephone number], [email]. Further nondiscrimination information can be found at [url].

Level 4

Level 4

For additional information on the Information Technology career cluster, contact info@itcsc.org or visit itcsc.org/itcsc

Level 3

Level 3

[LBH narrat] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scout and other designated youth groups. The following portion has been designated as handling regarding the nondiscrimination policies [title], [address], [telephone number], [telex], further nondiscrimination information can be found at: [http://www.bsa.org/nondiscrimination](#). In Canada and Quebec, Education Officers

Level 4

Level 4

For additional information on the **Information Technology career cluster**,
contact info@itcsc.org or visit www.itcsc.org/itcsc

Level 3

Level 3

* Indicates course is included in more than one program of study.

boards of race, color, national origin, sex, or disability in its programs or activities and provides equal

[E]xamples do not discriminate on the basis of race, color, national origin, sex, or disability. This program or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [title], [address], [telephone number], [email], [further nondiscrimination information].

Engineering Career Cluster

The Engineering career cluster focuses on planning, designing, testing, building, and maintaining of machines, structures, materials, systems, and processes using empirical evidence and science, technology, and math principles. This career cluster includes occupations ranging from mechanical engineer and drafter to electrical engineer and to mapping technician.

Statewide Program of Study: Engineering Foundations

The Engineering Foundations program of study focuses on occupational and educational opportunities associated with a wide range of skills applied in the Engineering industry. Students will design, test, and evaluate projects related to engines, machines, and structures. This program of study includes applying scientific, mathematical, and empirical evidence to solve problems through innovation, design, construction, operation, and maintenance of different engineering systems.

Secondary Courses for High School Credit

- Level 1**
- Introduction to Engineering Design (PLTW) **1730**
- Level 2**
- Robotics I **1738 (Preferably after 1732 & 1734)**
- Level 3**
- Engineering Science **1732**
 - Digital Electronics **1734**
 - Engineering Design and Presentation I **1735**

Aligned Advanced Academic Courses

AP or IB	AP Calculus AB AP Computer Science A	AP Physics 1 AP Physics 2 AP Statistics	IB Physics SL IB Physics HL IB Computer Science SL IB Computer Science HL
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Dual Credit Dual credit offerings will vary by local education agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Intern at an engineering, robotics, or aerospace company.
- Visit an engineering firm and shadow multiple types of engineers.

Expanded Learning Opportunities

- Participate in SkillsUSA or TSA
- Join a local engineering association and attend meetings.

Aligned Industry-Based Certifications

- Engineering Technology Foundations



Successful completion of the Engineering Foundations program of study will fulfill requirements of the Business and Industry endorsement or the STEM endorsement if the math and science requirements are met.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Industrial Engineering Technician Apprenticeship

Associate Degrees

- Manufacturing Engineering Technology/Technician
- Robotics Technology/Technician

Bachelor's Degrees

- Electrical and Electronics Engineering
- Engineering, General

Master's, Doctoral, and Professional Degrees

- Electrical and Electronics Engineering
- Engineering, General

Additional Stackable IBCs/Licensures

- Professional Engineer (PE License)
- Engineer in Training Certification (EIT)



Example Aligned Occupations

Civil Engineering Technologists and Technicians

Median Wage: \$61,138

Annual Openings: 765

10-Year Growth: 11%

Aerospace Engineers

Median Wage: \$115,694

Annual Openings: 483

10-Year Growth: 18%

Mechanical Engineers

Median Wage: \$99,937

Annual Openings: 1,755

10-Year Growth: 19%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study/additional-resources>

Engineering Career Cluster

Statewide Program of Study: Engineering Foundations

Course Information

Course	Prerequisites Corequisites	Career Clusters
Principles of Applied Engineering* 130366.00 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Principles of Technology* 130371.00 (1 credit)	Prerequisites: One credit of high school Science and Algebra I Recommended Prerequisites: None Recommended Corequisites: None	
Introduction to Computer-Aided Design 130373.00 (1 credit)	Prerequisites: None Corequisites: None Prerequisites: Algebra I, Principles of Applied Engineering, 130373.00 (1 credit) Recommended Prerequisites: None Recommended Corequisites: None	
Introduction to Engineering Design 130374.01 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Engineering Essentials 130375.00 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Course	Prerequisites Corequisites	Career Clusters
Intermediate Computer-Aided Design and Drafting* 130376.01 (1 credit)	Prerequisites: Architectural Design I, Introduction to Computer-Aided Design and Drafting Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Manufacturing Engineering Technology I* 130378.00 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Algebra I Recommended Corequisites: None	
Robotics I* 130379.00 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Applied Engineering Recommended Corequisites: None	
<i>Continued on next page</i>		

* Indicates course is included in more than one program of study.

For additional information on the Engineering career cluster,

visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org.



Engineering Career Cluster

Statewide Program of Study: Engineering Foundations

Course Information

Course	Prerequisites Corequisites	Career Clusters
Engineering Design and Presentation I* 130366.00 (2 credits)	Prerequisites: Principles of Applied Engineering, Engineering Design and Presentation I, Algebra I, and Geometry Recommended Prerequisites: Principles of Applied Engineering or Engineering Design and Presentation I Corequisites: None	
Engineering Design and Problem Solving* 130371.00 (1 credit)	Prerequisites: Algebra I, Geometry, and Problem Solving Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career and Technical Education Project-based Capstone* 130373.00 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Science, Technology, Engineering, and Mathematics* 130374.01 (2 credits)	Prerequisites: Algebra I and Geometry Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Science, Technology, Engineering, and Mathematics + Extended Practicum in Science, Technology, Engineering, and Mathematics* 130375.00 (2 credits)	Prerequisites: Algebra I and Geometry Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Engineering* 130376.01 (1 credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
<i>Continued on next page</i>		

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Engineering Career Cluster

Statewide Program of Study: Engineering Foundations

Course Information

Course	Prerequisites Corequisites	Career Clusters
Construction Engineering TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Engineering Design Process TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Course	Prerequisites Corequisites	Career Clusters
Engineering Design and Presentation I* 130373.00 (1 credit)	Prerequisites: Algebra I Corequisites: None Recommended Prerequisites: Principles of Applied Engineering Recommended Corequisites: None	
Robotics II* 130375.00 (1 credit)	Prerequisites: Robotics I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Engineering Mathematics* 130376.01 (1 credit)	Prerequisites: Algebra I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Engineering Science* 130377.00 (1 credit)	Prerequisites: Algebra I, Science, and Biology, and at least one credit in a STEM career cluster Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Digital Electronics* 130378.00 (1 credit)	Prerequisites: Algebra I and Geometry Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
<i>Continued on next page</i>		

* Indicates course is included in more than one program of study.

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Engineering Career Cluster

Statewide Program of Study: Engineering Foundations

Course Information

Course	Prerequisites Corequisites	Career Clusters
Career Preparation for Programs of Study* 127011.12 (2 credits)	Prerequisites: At least one Level 2 course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Career Preparation* 127011.13 (3 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Scientific Research and Design* 130372.00 (1 credit)	Prerequisites: Biology, Chemistry, Integrated Physics and Chemistry (IPC) Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Engineering career cluster,

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Engineering Career Cluster

Statewide Program of Study: Engineering Foundations

Course Information

Course	Prerequisites Corequisites	Career Clusters
Aerospace Engineering (P,TW)* N3.0374.5 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: At least one credit in Level 2 or higher course in Engineering Recommended Corequisites: None	
Environmental Sustainability (P,TW) N3.0374.6 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: At least one credit in a Level 2 or higher course in Engineering or Science Recommended Corequisites: None	
Civil Engineering and Architecture (P,TW)* N3.0374.7 (1 credit)	Prerequisites: None Corequisites: College Prep Math and Science Recommended Prerequisites: Introduction to Engineering Design Recommended Corequisites: None	
Computer Integrated Engineering (P,TW)* N3.0374.8 (1 credit)	Prerequisites: None Corequisites: College Prep Math and Science Recommended Prerequisites: None Recommended Corequisites: None	
Engineering Design and Development (P,TW)* N3.0374.9 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: At least two courses in engineering with at least one being a Level 2 or higher course Recommended Corequisites: None	
Introduction to Fluids TBD (credit TBD)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: None	
Introduction to Mechanics of Materials TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: None	
Introduction to Statics TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: None	
Programming for Engineers TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Engineering career cluster,

visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org. For additional information on the Engineering career cluster, visit www.texasgateway.org.



Engineering Foundations

Engineering Foundations

Law and Public Service Career Cluster

Revised –March 2024



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. This career cluster includes occupations ranging from police officer and firefighter to political scientist and lawyer.

Statewide Program of Study: Law Enforcement

The Law Enforcement program of study focuses on occupational and educational opportunities associated with the development and enforcement of laws by various branches of law enforcement. This program of study includes the history, organization, and functions of local, state, and federal law enforcement. Students will understand the role of constitutional law at local, state, and federal levels; the U.S. legal system; criminal law; and law enforcement terminology and the classification and elements of crime.



Secondary Courses for High School Credit

- | | | |
|----------------|---|-------------|
| Level 1 | • Principles of Law, Public Safety, Corrections, and Security | 1750 |
| Level 2 | • Law Enforcement I | 1752 |
| | • Criminal Investigation | 1758 |
| Level 3 | • Law Enforcement II | 1754 |



Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by Local Education Agency

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards Concentrator/Completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow a detective to learn about investigations and the role of detectives in law enforcement
- Intern in dispatch at a local law enforcement agency to learn about first responder roles and processes

Expanded Learning Opportunities

- Visit a police department
- Participate in TSA or SkillsUSA

Aligned Industry-Based Certifications

- **Non-Commissioned Security Officer Level II License**



Successful completion of the Law and Public Services program of study will fulfill requirements of the Public Services endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____

Example Postsecondary Opportunities

Apprenticeships

- Security Specialist

Associate Degrees

- Criminal Justice
- Law Enforcement

Bachelor's Degrees

- Forensic Science
- Criminal Justice

Master's, Doctoral, and Professional Degrees

- Criminal Justice
- Criminology and Criminal Justice

Additional Stackable IBCs/Licensures

- Jailer – Basic County Corrections
- Basic Telecommunicator



Example Aligned Occupations

Police and Sheriff's Patrol Officers

Median Wage: \$64,373
Annual Openings: 5,424
10-Year Growth: 13%

Detectives and Criminal Investigators

Median Wage: \$82,090
Annual Openings: 1,536
10-Year Growth: 8%

First-Line Supervisors of Police and Detectives

Median Wage: \$97,571
Annual Openings: 5461
0-Year Growth: 12%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>

Level 1	Course	Prerequisites Corequisites	CareerClusters
	Principles of Law, Public Safety, Corrections, and Security* 13029200 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Level 2	Course	Prerequisites Corequisites	Career Clusters
	Law Enforcement I 13029300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	
	Criminal Investigation 13029550 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	
	Federal Law Enforcement and Protective Services* 13029800 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	
Level 3	Course	Prerequisites Corequisites	Career Clusters
	Law Enforcement II 13029400 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Law Enforcement I Recommended Corequisites: None	
	Correctional Services 13029700 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Law, Public Safety, Corrections, and Security Recommended Corequisites: None	
	Forensic Psychology NJ1303012 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Law Enforcement I and Psychology Recommended Corequisites: None	
	Counseling and Mental Health 13024600 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None	
	Crisis Care* TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Level 4	Course	Prerequisites Corequisites	CareerClusters
	Forensic Science 13029500 (1 credit)	Prerequisites: one credit in Biology, one credit in Chemistry, integrated Physics and Chemistry, or Physics Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the **Law and Public Service** career cluster,

contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

TEA's goal is not to discriminate on the basis of race or ethnicity. Any individual who wishes to file a complaint regarding alleged discrimination should contact the Texas Education Agency (TEA) at 1701 North Congress Avenue, Austin, Texas 78701. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [Title], [Address], [Telephone number], [email]. Further nondiscrimination information can be found at nondiscrimination.texas.gov and nondiscrimination.texas.gov.



Level 4	Course	Prerequisites Corequisites	CareerClusters
	Practicum in Law, Public Safety, Corrections, and Security* First Time Taken: 13030100 (2 credits) Second Time Taken: 13030110 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Practicum in Law, Public Safety, Corrections, and Security + Extended Practicum in Law, Public Safety, Corrections, and Security* First Time Taken: 13030105 (3 credits) Second Time Taken: 13030115 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
	Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	      
	Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	      

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Transportation, Distribution, and Logistics Career Cluster

The Transportation, Distribution, and Logistics career cluster focuses on planning, management, and movement of people, materials, and goods by road, pipeline, air, rail, and water. It also includes transportation infrastructure planning and management, logistics services, and mobile equipment and facility maintenance. This career cluster includes occupations ranging from automotive mechanic, avionics technician, and automotive entrepreneur to pilots and logistics planning professionals.

Statewide Program of Study: Automotive and Collision Repair

The Automotive and Collision Repair program of study focuses on the occupational and educational opportunities associated with servicing, repairing, and refinishing various types of vehicles. This program of study includes diagnosing and servicing vehicles and learning about processes, technologies, and materials used in reconstructing vehicles.



Secondary Courses for High School Credit

- | | |
|----------------|--|
| Level 1 | <ul style="list-style-type: none"> Principles of Transportation Systems (1710) |
| Level 2 | <ul style="list-style-type: none"> Introduction to Transportation Technology (1708) Automotive Basics (1712) |
| Level 3 | <ul style="list-style-type: none"> Automotive Technology I: Maintenance and Light Repair (1713) |

Aligned Advanced Academic Courses

Dual Credit	Dual credit offerings will vary by local education agency.
<i>Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.</i>	

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities

- Shadow an automotive technician at a car dealership
- Intern at a rental car company and assist technicians with vehicle maintenance
- Work at a local automotive repair shop and hold both customer service duties and automatic repair duties

Expanded Learning Opportunities

- Join a related automotive association and attend events
- Participate in SkillsUSA

Aligned Industry-Based Certifications

- ASE Entry Level Automobile Maintenance and Light Repair (MR)
- ASE Entry-Level Automobile Brakes (BR)
- ASE Entry-Level Automobile Electronic/Electrical Systems (EE)
- ASE Entry-Level Automobile Engine Performance (EP)
- ASE Entry-Level Automobile Engine Repair (ER)



Successful completion of the Automotive and Collision Repair program of study will fulfill requirements of the Business and Industry endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Automotive Technician Apprenticeship

Associate Degrees

- Automobile/Automotive Mechanics Technology
- Autobody/Collision and Repair Technology

Bachelor's Degrees

- Autobody/Collision and Repair Technology
- Heavy Equipment Maintenance Technology

Additional Stackable IBCs/License

- Automobile and Light Truck Certification (A1 – A9)



Example Aligned Occupations

Automotive Service Technicians and Mechanics

Median Wage: \$44,809
Annual Openings: 6,285
10-Year Growth: 10%

Bus and Truck Mechanics and Diesel Engine Specialists

Median Wage: \$50,967
Annual Openings: 3,096
10-Year Growth: 19%

First-Line Supervisors of Mechanics, Installers, and Repairers

Median Wage: \$66,535
Annual Openings: 5,019
10-Year Growth: 19%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:

<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 1

Course	Prerequisites Corequisites	Career Clusters
Principles of Transportation Systems* 13039250 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Basic Collision Repair and Refinishing 13039750 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Small Engine Technology I* 13040000 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

Level 2

Course	Prerequisites Corequisites	Career Clusters
Introduction to Transportation Technology* 13039270 (0.5 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Small Engine Technology II 13040100 (2 credits)	Prerequisites: Small Engine Technology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Occupational Safety and Environmental Technology I* N1303680 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Transportation Systems, Principles of Distribution and Logistics, or Principles of Manufacturing Recommended Corequisites: None	
Automotive Basics 13039550 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Collision Repair 13039800 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.

For additional information on the Transportation, Distribution, and Logistics career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



[TEA name] does not discriminate on the basis of race, color, national origin, sex, or disability in its programs or activities and provides equal access to the Boy Scouts and other designated youth groups. The following person has been designated to handle inquiries regarding the nondiscrimination policies: [Title], [address], [telephone number], [email]. Further nondiscrimination information can be found at [Justification of Nondiscrimination in Career and Technical Education Programs](#).



Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 2

Course	Prerequisites Corequisites	Career Clusters
Collision Repair + Advanced Transportation Systems Laboratory 13039810 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing Recommended Corequisites: None	
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Business, Marketing, and Finance Recommended Corequisites: None	

Level 3

Course	Prerequisites Corequisites	Career Clusters
Energy and Power of Transportation Systems 13039300 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Transportation Systems Recommended Corequisites: None	
Automotive Technology I: Maintenance and Light Repair 13039600 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Automotive Basics Recommended Corequisites: None	
Paint and Refinishing 13039900 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing or Collision Repair Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.

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Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 3

Course	Prerequisites Corequisites	Career Clusters
Paint and Refinishing + Advanced Transportation Systems Laboratory 13039910 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Basic Collision Repair and Refinishing or Collision Repair Recommended Corequisites: None	

Level 4

Course	Prerequisites Corequisites	Career Clusters
Automotive Technology II: Automotive Service 13039700 (2 credits)	Prerequisites: Automotive Technology I: Maintenance and Light Repair Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Automotive Technology II: Automotive Service + Advanced Transportation Systems Laboratory 13039710 (3 credits)	Prerequisites: Automotive Technology I: Maintenance and Light Repair Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Customer Service Representative TBD (TBD credit)	Prerequisites: TBD Corequisites: TBD Recommended Prerequisites: TBD Recommended Corequisites: TBD	
Practicum in Transportation Systems* First Time Taken: 13040450 (2 credits) Second Time Taken: 13040460 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

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* Indicates course is included in more than one program of study.

For additional information on the Transportation, Distribution, and Logistics career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Transportation, Distribution, and Logistics Career Cluster

Statewide Program of Study: Automotive and Collision Repair

Course Information

Level 4

Course	Prerequisites Corequisites	Career Clusters
Practicum in Transportation Systems + Extended Practicum in Transportation Systems* First Time Taken: 13040455 (3 credits) Second Time Taken: 13040465 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: Practicum in Entrepreneurship Recommended Prerequisites: Entrepreneurship I and II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: : At least one Level 2 or higher CTE course Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None	

* Indicates course is included in more than one program of study.

For additional information on the Transportation, Distribution, and Logistics career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>



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Automotive and Collision Repair

Automotive and Collision Repair

Automotive and Collision Repair

Automotive and Collision Repair



Human Services Career Cluster

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. This career cluster includes occupations ranging from community health workers to cosmetologists and nutritionists.

Regional Program of Study: Cosmetology and Personal Care Services

Approved in ESC Regions 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, & 20

**The list of approved ESC regions is updated every school year. Be sure to check the CTE regional program of study website for updates.*

The Cosmetology and Personal Care Services regional program of study focuses on occupational and educational opportunities associated with providing beauty and personal care services. This program of study includes managing personal care facilities and coordinating or supervising personal service workers.

Secondary Courses for High School Credit

- | | |
|---------|---|
| Level 1 | • Principles of Cosmetology Design and Color Theory |
| Level 2 | • Introduction to Cosmetology |
| Level 3 | • Barbering I |
| Level 4 | • Barbering II |

Aligned Advanced Academic Courses

Dual Credit Dual credit offerings will vary by local educational agency.

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

- | | |
|--|--|
| Work-Based Learning Activities | <ul style="list-style-type: none"> • Work part-time in a salon, spa, or barbershop • Participate in an apprenticeship at a salon to become an apprentice stylist |
| Expanded Learning Opportunities | <ul style="list-style-type: none"> • Tour a salon, spa, or barbershop • Participate in SkillsUSA |

Aligned Industry-Based Certifications

- Barber Operator License



Successful completion of the Cosmetology and Personal Care Services regional program of study will fulfill requirements of the Public Service endorsement.

Student Name: _____

Student ID#: _____

Parent Signature: _____

Counselor Signature: _____

Date: _____



Example Postsecondary Opportunities

Apprenticeships

- Apprentice Stylist

Associate Degrees

- Cosmetology Operator
- Esthetics and Skin Care

Additional Stackable IBCs/License

- Class A Barber
- Eyelash Extension Specialist
- Hair Weaving Specialist



Example Aligned Occupations

Hairdressers, Hairstylists, and Cosmetologists

Median Wage: \$27,286
Annual Openings: 8,014
10-Year Growth: 25%

Skincare Specialists

Median Wage: \$35,112
Annual Openings: 778
10-Year Growth: 38%

First-Line Supervisors of Personal Service Workers

Median Wage: \$36,795
Annual Openings: 2,253
10-Year Growth: 29%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.



For more information visit:
<https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources>



Human Services Career Cluster

Regional Program of Study: Cosmetology and Personal Care Services

Course Information

Level 1			Career Clusters	
Course	Prerequisites Corequisites			
Principles of Cosmetology Design and Color Theory 13025050 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Human Services Recommended Corequisites: None			
Microbiology and Safety for Cosmetology Careers N1302540 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Level 2			Career Clusters	
Course	Prerequisites Corequisites			
Introduction to Cosmetology 13025100 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Nail Care, Enhancements, and Spa Services N1302531 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Esthetics N1302533 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Entrepreneurship I* 13011101 (1 credit)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		 	
Level 3			Career Clusters	
Course	Prerequisites Corequisites			
Cosmetology I 13025200 (2 credits)	Prerequisites: None Corequisites: Cosmetology I Lab Recommended Prerequisites: Introduction to Cosmetology Recommended Corequisites: None			
Cosmetology I + Cosmetology I Lab 13025210 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Introduction to Cosmetology Recommended Corequisites: None			
Barbering I N1302534 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			

* Indicates course is included in more than one program of study.

For additional information on the Human Services career cluster, contact cte@tea.texas.gov or visit <https://tea.texas.gov/cte>

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Human Services Career Cluster

Regional Program of Study: Cosmetology and Personal Care Services

Course Information

Level 4			Career Clusters	
Course	Prerequisites Corequisites			
Cosmetology II 13025300 (2 credits)	Prerequisites: Cosmetology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Cosmetology II + Cosmetology II Lab 13025310 (3 credits)	Prerequisites: Cosmetology I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Barbering II N1302535 (3 credits)	Prerequisites: Barbering I Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None			
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None		 	
Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship* First Time Taken: 13011121 (3 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entrepreneurship I and Entrepreneurship II or successful completion of at least two courses in a CTE program of study Recommended Corequisites: None		 	
Career Preparation for Programs of Study* First Time Taken: 12701121 (2 credits)	Prerequisites: At least one Level 2 or higher CTE program of study Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		 	
Career Preparation for Programs of Study + Extended Career Preparation* First Time Taken: 12701141 (3 credits)	Prerequisites: At least one Level 2 or higher CTE program of study Corequisites: None Recommended Prerequisites: None Recommended Corequisites: None		 	

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