Revised–May 2024

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 • Principles of Architecture
Level 2	• Construction Technology I • Entrepreneurship I
Level 3	• Construction Technology II • Mill and Cabinetmaking Technology
Level 4	• Practicum in Construction Technology • Practicum in Construction Technology + Extended Practicum in Construction Technology • Practicum in Entrepreneurship • Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship • Career Preparation for Programs of Study • Career Preparation for Programs of Study + Extended Career Preparation

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 with a carpenter to practice skills such as measuring materials and assembling structures • Participate in a pre-apprenticeship that 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

Aligned Industry-Based Certifications

- HBI Pre-Apprenticeship Certificate Training (PACT), Basic Carpentry
- HBI Pre-Apprenticeship Certificate Training (PACT), Core
- HBI Pre-Apprenticeship Certificate Training (PACT), Green Core
- NCCER Carpentry Level I
- NCCER Carpentry Level II
- NCCER Commercial Carpenter
- NCCER Construction Technology Certification Level I
- NCCER Core
- NCCER Painting: Commercial and Residential Level I
- LEED Green Associate

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

Example 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

Level 1

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

Level 2

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 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
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 Construction and Principles of Architecture **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 cte@tea.texas.gov or visit https://tea.texas.gov/cte

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Architecture and Construction Career Cluster

Statewide Program of Study: Carpentry

Level 4

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 ll; 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	
Practicum in Construction Technology + Extended Practicum in Construction Technology* First Time Taken: 13005255 (3 credits) Second Time Taken: 13005265 (3 credits)	**Prerequisites:** Construction Technology ll, 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	
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 Take: 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 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	

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Carpentry

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