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

Career Preparation

Aligned Advanced Academic Courses

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

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 Creditsection of this framework document donot 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	 Shadow a construction manager to learn more about
Learning	how construction teams work together to complete
Opportunities	projects Participate in SkillsUSA

Industry-Based Certifications

- HBI Pre-Apprenticeship Certificate Training
 NCCER Commercial Carpenter (PACT), Basic Carpentry
- HBI Pre-Apprenticeship Certificate Training (PACT), Core
- HBI Pre-Apprenticeship Certificate Training NCCER Painting: Commercial and (PACT), Green Core

the Business and Industry endorsement.

- NCCER Carpentry Level I
- NCCER Carpentry Level II

- NCCER Construction Technology
 - Certification Level I
- NCCER Core

Successful completion of the Carpentry program of study will fulfill requirements of

- Residential Level I
- LEED Green Associate



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%

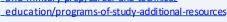
Construction Managers

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-





Architecture and Construction Career Cluster Statewide Program of Study: Carpentry

Course Information

	Course	Prerequisites Corequisites	Career Clusters
Level 1	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	I C I
	Course	Prerequisites Corequisites	Career Clusters
Level 2	Construction Technology I 13005100 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Construction or Principles of Architecture Recommended Corequisites: None	1 2 , 2
	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
Level 3	Construction Technology II 13005200 (2 credits)	Prerequisites: Construction Technology I Corequisites: None Recommended Prerequisites: Principles of Construction or Principles of Architecture Recommended Corequisites: None	i E.
	Mill and Cabinetmaking Technology 13005300 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Principles of Architecture and Principles of Construction Recommended Corequisites: None	I 🕄

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

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For additional information on the **Architecture and Construction career cluster**, conta ct <u>cte@tea.texas.gov</u> or visit <u>https://tea.texas.gov/cte</u>



Level 4

Architecture and Construction Career Cluster Statewide Program of Study: Carpentry Course Information

Course	Prerequisites Corequisites	Career Clu
Practicum in Construction Technology* First Time Taken: 13005250 (2 credits) Second Time Taken: 13005260 (2 credits)	Prerequisites: Construction Technology II; 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	I C.
Practicum in Construction Technology/Extended Practicum in Construction Technology* First Time Taken: 13005255 (3 credits) Second Time Taken: 13005265 (3 credits)	Prerequisites: Construction Technology II, 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	I C
Practicum in Entrepreneurship* First Time Taken: 13011111 (2 credits)	Prerequisites: None Corequisites: None Recommended Prerequisites: Entre preneurship 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	

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

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