

# Architecture and Construction Career Cluster

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

## Plumbing and Pipefitting Statewide Program of Study



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

### Secondary Courses for High School Credit

#### Level 1

- Principles of Construction
- Introduction to Welding

#### Level 2

- Plumbing Technology I
- Pipefitting Technology I/Lab

#### Level 3

- Plumbing Technology II
- Pipefitting Technology II/Lab

#### Level 4

- Practicum in Construction Technology
- Practicum in Entrepreneurship
- Career Preparation I

### Postsecondary Opportunities

#### Associates Degrees

- Plumbing Technology/ Plumber
- Electrical and Power Transmission Installation/ Installer, General
- Pipefitting/ Pipefitter and Sprinkler Fitter
- High Performance and Custom Engine Technician/ Mechanic

#### Bachelor's Degrees

- Construction Science
- Operations Management and Supervision

#### Master's, Doctoral, and Professional Degrees

- Construction Management
- Operations Management and Supervision

### Work-Based Learning and Expanded Learning Opportunities

Exploration Activities	Work-Based Learning Activities
<ul style="list-style-type: none"> <li>• Job shadow a plumber, pipefitter, or steamfitter</li> <li>• Participate in SkillsUSA</li> </ul>	<ul style="list-style-type: none"> <li>• Obtain a Core Curriculum NCCER certification in Pipefitting Level I or Plumbing Level I</li> </ul>

### Industry-Based Certifications

- HBI Pre-Apprenticeship Certificate Training (PACT), Core
- Industrial Technology Maintenance (ITM) - Maintenance Piping
- NCCER Core
- NCCER Industrial Pipefitter
- NCCER Pipefitting, Level I
- NCCER Plumbing, Level I
- NCCER Plumbing, Level II
- NCCER Construction Technology Certification Level I
- Tradesman Plumber – Limited
- OSHA 30 Hour Construction\*
- OSHA 30 Hour General\*

\*IBC sunsetting 8/31/24



### Aligned Occupations

Occupations	Median Wage	Annual Openings	% Growth
Mechanics, Installers, and Repairers	\$63,710	4,243	17%
Plumbers, Pipefitters and Steamfitters	\$44,928	5,765	23%
Helpers-Pipelayers, Plumbers, Pipefitters, and Steamfitters	\$30,098	1,567	18%
Pipe Installers	\$31,616	802	21%

Successful completion of the Plumbing and Pipefitting program of study will fulfill requirements of the Business and Industry endorsement. Revised – August 2022

# Plumbing and Pipefitting Course Information

## Level 1

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Principles of Construction	13004220 (1 credit)	None	None
Introduction to Welding	13032250 (1 credit)	None	None

## Level 2

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Plumbing Technology I	13006000 (1 credit)	None	None
Pipefitting Technology I/Lab	N1300425 (1 credit) N1300427 (1 credit)	Algebra I	Geometry

## Level 3

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Plumbing Technology II	13006100 (2 credits)	Plumbing Technology I	None
Pipefitting Technology II/Lab	N1300426 (1 credit) N1300428 (1 credit)	Pipefitting Technology I	None

## Level 4

COURSE NAME	SERVICE ID	PREREQUISITES	COREQUISITES
Practicum in Construction Technology	13005250 (2 credits) 13005255 (3 credits) 13005260 (2 credits) 13005265 (3 credits)	Construction Technology II; Building Maintenance Technology II; Electrical Technology II; Heating, Ventilation Air Conditioning (HVAC) and Refrigeration Technology II; Plumbing Technology I; or Mill and Cabinetmaking Technology	None
Practicum in Entrepreneurship	N1303425 (2 credits)	None	None
Career Preparation I	12701300 (2 credits) 12701305 (3 credits)	None	None

FOR ADDITIONAL INFORMATION ON THE ARCHITECTURE AND CONSTRUCTION CAREER CLUSTER, PLEASE CONTACT: [CTE@tea.texas.gov](mailto:CTE@tea.texas.gov)  
<https://tea.texas.gov/cte>

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