Architectural & Engineering Design

Architecture and Construction

**How to use this document as a marketing material:**

* Update header/footer with information.
* Share with parents, students, administrators

**IDEAS to include:**

* Add district/school CTE logo
* Add a second page to highlight course enrollment, CTSO achievements, and/or WBL opportunities.

**Be sure to delete this box before printing/sharing!**

JOB OUTLOOK

Job demand in the architecture and engineering occupations is strong. Construction and manufacturing continue to boom in Tennessee. This is expected to continue as current companies expand and new companies come to the state. Both residential and commercial construction is expected to remain active. There are many opportunities for career advancement for architects, surveyors, drafters, and engineers. The continual growth of construction combined with the number of workers retiring ensures that architecture and engineering will remain a high demand occupation.



OCCUPATION PROFILE

Architecture and engineering is a wide-ranging field that includes designing buildings and outdoor projects, drafting architectural drawings, surveying, and engineering. Architects design buildings to meet the needs of their occupants. Landscape architects design attractive and functional outdoor spaces. Drafters fine tune drawings using updated design software to meet the users’ needs. Civil engineers plan and oversee construction and maintenance of buildings and infrastructure, such as roads, railways, airports, bridges, harbors, dams, power plants, and water and sewage systems.

**2018 ESTIMATED EMPLOYMENT**

868

**Architects, Except Landscape and Naval**

Median Salary: $72,801

**Landscape Architects**

Median Salary: $57,190

**Architectural and Civil Drafters**

Median Salary: $51,723

**Architects, Surveyors, and Cartographers**

Median Salary: $57,190

**Civil Engineers**

Median Salary: $82,086

**2018 ESTIMATED EMPLOYMENT**

161

**TOTAL EMPLOYMENT CHANGE**

25

**2018 ESTIMATED EMPLOYMENT**

3,053

**2018 ESTIMATED EMPLOYMENT**

3,748

**2018 ESTIMATED EMPLOYMENT**

1,746161

**2028 PROJECTED EMPLOYMENT**

186

**TOTAL EMPLOYMENT CHANGE**

96

**2028 PROJECTED EMPLOYMENT**

964

**TOTAL EMPLOYMENT CHANGE**

541

**2028 PROJECTED EMPLOYMENT**

3,594

**TOTAL EMPLOYMENT CHANGE**

425

**2028 PROJECTED EMPLOYMENT**

4,173

**TOTAL EMPLOYMENT CHANGE**

322

**2028 PROJECTED EMPLOYMENT**

2,068

**PROGRAM OF STUDY PROFILE**

The Architectural & Engineering Design program of study prepares students for a variety of engineering and design professions including architectural, civil, or mechanical design. Students will learn how to use architectural software. Students will develop problem-solving and critical-thinking skills by identifying the relationship between available resources and requirements of a project/problem to accomplish realistic planning.



**STUDENT ENROLLMENT ANALYSIS**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Architectural & Engineering Design I | Architectural & Engineering Design II | Architectural & Engineering Design III | Engineering Practicum |
| 2017-18 | 2,387 | 1,261 | 1,148 | 277 |
| 2018-19 | 2,295 | 1,093 | 862 | 214 |
| 2019-20 | 1,785 | 948 | 717 | 241 |

**Career Pathway**

**Early & Middle Grade Opportunities**

* Career Exploration C25X00

**Secondary Grade Opportunities**

* Architectural & Engineering Design I
* Architectural & Engineering Design II
* Architectural & Engineering Design III
* Engineering Practicum
* CTSO
* Work-based Learning

**Postsecondary Opportunities**

**Certificate:** Drafting and CAD, Architectural Design, Civil Technology, Construction Surveying

**Associates Degree:** A.A.S. Engineering Technology, A.S. Civil Engineering

**Bachelor’s degree:** B.S. Civil Engineering, B.S. Architecture

**Career Opportunities**

* Architects, Except Landscape and Naval
* Landscape Architects
* Architectural and Civil Drafters
* Architects, Surveyors, and Cartographers
* Civil Engineers