



Architecture and Construction

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.



Program of Study: Architectural Drafting and Design

The Architectural Drafting and Design program of study focuses on occupational and educational opportunities associated with developing, engineering, and designing building structures and facilities. This program of study includes reading, interpreting, and drawing blueprints for interior and exterior construction projects.

Courses

9 th Grade	Principles of Architecture
10 th Grade	Architectural Design I
11 th Grade	Architectural Design II
12 th Grade	Practicum in Architectural Design OR Career Preparation for Programs of Study



Example Postsecondary Opportunities

Apprenticeships

- Drafter

Associate Degrees

- CAD/CADD Drafting and/or Design Technology
- Drafting and Design Technology
- Surveying Technology/Surveying
- Architectural Drafting and Architectural CAD/CADD

Bachelor's Degrees

- Civil Engineering
- Construction Engineering
- Surveying Engineering
- Drafting and Design Technology

Master's, Doctoral, and Professional Degrees

- Civil Engineering
- Geographic Information Science and Cartography
- Construction Engineering Technology

Work-Based Learning/Expanded Learning Opportunities

Work-Based Learning Activities	<ul style="list-style-type: none"> • Earn industry certification • Tour an architecture firm • Work with Panther Architectural Works
Expanded Learning Opportunities	SkillsUSA

Aligned Industry-Based Certifications

- Autodesk Associate (Certified User) AutoCAD
- Autodesk Associate (Certified User) Revit Architecture

Example Aligned Occupations

Architectural and Civil Drafters

Median Wage: \$57,424
Annual Openings: 1,366
10-Year Growth: 15%

Architects

Median Wage: \$80,903
Annual Openings: 966
10-Year Growth: 18%

Construction Managers

Median Wage: \$95,072
Annual Openings: 6,325
10-Year Growth: 24%

Successful completion of this program of study will fulfill requirements of the Business and Industry Endorsement. Approved Statewide Program of Study. C. E. King High School – 2024-25



Architectural Drafting and Design

Course Information

Level 1

Principles of Architecture

13004210

Grade: 9-10

Credit: 1

Principles of Architecture provides an overview to the various fields of architecture, interior design, and construction management. Achieving proficiency in decision making and problem solving is an essential skill for career planning and lifelong learning. Students use self-knowledge, education, and career information to set and achieve realistic career and educational goals. Job-specific training can be provided through training modules that identify career goals in trade and industry areas. Classroom studies include topics such as safety, work ethics, communication, information technology applications, systems, health, environment, leadership, teamwork, ethical and legal responsibility, employability, and career development and include skills such as problem solving, critical thinking, and reading technical drawings.

Level 2

Architectural Design I

13004600

Grade: 10-12

Credit: 1

Prerequisite: Algebra I and English I

Recommended Prerequisite: Principles of Architecture

In Architectural Design I, students will gain knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design I includes the knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Level 3

Architectural Design II

13004700

Grade: 11-12

Credit: 2

Prerequisite: Architectural Design I and Geometry

In Architectural Design II, students will gain advanced knowledge and skills needed to enter a career in architecture or construction or prepare a foundation toward a postsecondary degree in architecture, construction science, drafting, interior design, or landscape architecture. Architectural Design II includes the advanced knowledge of the design, design history, techniques, and tools related to the production of drawings, renderings, and scaled models for nonresidential or residential architectural purposes.

Industry Based Certification: Autodesk Associate (Certified User) AutoCAD

Level 4

Practicum in Architectural Design

13004800

Grade: 12

Credit: 2

Prerequisite: Architectural Design II

Practicum in Architectural Design is an occupationally specific course designed to provide technical instruction in architectural design. Safety and career opportunities are included in addition to work ethics and architectural design study.

Industry Based Certification: Autodesk Associate (Certified User) Revit Architecture