

# Career Cluster: Architecture and Construction



This diverse Career Cluster prepares learners for careers in designing, planning, managing, building, and maintaining the built environment. People employed in this cluster work on new structures, restorations, additions, alterations, and repairs.

## Pathway Descriptions

**Construction** workers literally build our future! These are the people who build and remodel houses, apartments, industrial buildings, warehouses, office buildings, churches, schools, and recreational facilities. This pathway also includes the builders of highways, streets, bridges, tunnels, and airports as well as power plants, chemical plants, refineries, and mills.

**Design/Pre-Construction** workers create our future. They turn a concept into a set of plans. Their plans guide other construction professionals as they continue the building process.

**Maintenance Operations** workers keep our future intact. These are the people who unload, inspect, and move new equipment into position. They determine the optimal placement of machines in a plant, assemble machinery, install machinery, repair machinery, and perform preventive maintenance. They detect, diagnose, and correct minor problems on machinery. They keep the structure of an establishment in good repair. They maintain the smooth operation of refineries, power plants, chemical plants, and mills. This pathway also includes the maintenance and repair of highways and roads.

## Preparation for a Career in this Cluster Includes...

### Nebraska Career Education Coursework

- Intro to the Built Environment
- Intro to Architecture Technology
- Language of Architecture & Construction
- Principals of Construction
- Principals of Design & Pre-construction
- Computer-Aided Design & Drafting (CADD)
- Housing & Home Furnishings
- Electricity
- Principals of Maintenance & Operations
- Restoration & Repair of Existing Structures

### Extended Learning

- SkillsUSA
- OPPD/NPPD Power Drive
- FFA
- Connect with Architects in your area
- Do home repair projects
- Learn about the history of the buildings in your community
- Work with a contractor
- Job shadow professionals
- Participate in internships
- Secure part-time employment
- Volunteer in this career area



# Postsecondary Options: Architecture and Construction

Students preparing for a career in the Architecture and Construction Career Cluster have a variety of postsecondary options. Education and training can be obtained through on-the-job training, technical colleges, two-year community colleges, four-year colleges/universities, and apprenticeship programs. They can enter programs leading to a certificate or a degree at the associate, baccalaureate, or advanced degree level. The table below shows examples of postsecondary Architecture and Construction programs of study organized by pathway.

	High School Diploma On-the-Job Training	Certificate/License	Associate's Degree	Bachelor's Degree	Master's/Doctoral Professional Degree
Construction	Carpentry Iron working Masonry	Carpentry Construction Management Electrical and Power Transmission Iron working	Carpentry Construction Management Electrical and Power Transmission Iron working	Construction Management	Construction Management Construction Engineering
Design and Pre-Construction		Interior Design Surveying Technology	Civil Engineering Technology Drafting and Design Technology Interior Design Surveying Technology	Architectural Engineering Technology Civil Engineering Technology Interior Design Landscape Architecture	Architectural Engineering Technology Civil Engineering Environmental Design Interior Design Landscape Architecture
Maintenance and Operations	Electrical/Electronics Equipment Installation and Repair Grounds-keeping Heating, Air Conditioning, and Refrigeration Technology	Electrical/Electronics Equipment Installation and Repair Landscape Management Heating, Air Conditioning, and Refrigeration Technology	Electrical/Electronics Equipment Installation and Repair Landscape Management Heating, Air Conditioning, and Refrigeration Technology	Industrial Engineering	



**For additional information on the Architecture and Construction Career Cluster please contact:**

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