

# ENGINEERING & ARCHITECTURE INDUSTRY SECTOR



The world's future will be propelled by ideas that will be developed by those working in the Engineering & Architecture industry sector. As the population continues to grow, engineers and architects will be called upon to imagine the future and turn it into reality. This sector is designed to provide a foundation in engineering, architecture, and design. There are four pathways that emphasize real-world, occupationally relevant experiences of significant scope and depth: Architectural Design; Engineering Technology; Engineering Design; and Environmental Engineering.

## CAREER PATHWAYS

### IS THIS INDUSTRY A GOOD MATCH FOR YOU?

#### Are you?

- Interested in math
- A problem solver
- Interested in creating new designs
- A team builder

#### Do you?

- Like to work collaboratively
- Have innovative ideas
- Pay attention to detail
- Like to work as part of a team and have a strong work ethic

### EDUCATION LEVEL & RELATED OCCUPATIONS

#### High School Diploma

CAD Technician  
Drafting Apprentice  
Apprentice Electrician

#### Certificate and/or Associate Degree

Drafter/Designer Estimator  
Computer Networking Technician  
Environmental Safety Technician

#### Bachelors+ Degree

Architect  
Computer Engineer  
Structural Engineer

FOR MORE INFORMATION THE THE ENGINEERING & ARCHITECTURE INDUSTRY SECTOR, GO TO THE CALIFORNIA CAREERZONE.

# CAREER PATHWAYS



## ARCHITECTURAL DESIGN

The Architectural Design pathway provides learning opportunities for students interested in preparing for careers in such areas as architecture, industrial design, and civil engineering.

### Sample occupations associated with this pathway:

- Drafter
- Architect
- Structural Designer
- Building Department Plan Examiner
- City Planner

## ENGINEERING TECHNOLOGY

The Engineering Technology pathway provides learning opportunities for students interested in preparing for careers in the design, production, or maintenance of mechanical, electrical, electronics, or electromechanical products and systems.

### Sample occupations associated with this pathway:

- Surveyor
- Research and Development Analyst
- Engineering Technologist
- Field Engineer
- Operations Engineer

## ENGINEERING DESIGN

The Engineering Design pathway provides learning opportunities for students interested in preparing for careers in the design and production of visual communications.

### Sample occupations associated with this pathway:

- Mechanical/Electrical Drafter
- Design Engineer
- Manufacturing Design Engineer
- Project Architect

## ENVIRONMENTAL ENGINEERING

The Environmental Engineering pathway includes design and development processes, equipment, and systems that are used to create, monitor, prevent, or correct environmental events and conditions.

### Sample occupations associated with this pathway:

- Environmental Safety Technician
- Environmental Specialist
- Environmental Analyst Environmental Scientist
- Air Pollution Control Engineer