

# Architecture, Construction & Interior Design Pathways

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# Career Path - Industrial & Engineering Technology - Building & Fixing

The field of Industrial & Engineering Technology is a way to speed up production, using simpler techniques and more efficient manufacturing processes. This field craves creative and technically proficient individuals who can help achieve efficient and profitable productivity.

## **Career Cluster 2 – Architecture and Construction**

The Architecture and Construction career cluster prepares learners for designing, planning, managing, building or maintaining the structures where we live, work and play.



<u>Apprenticeship</u> – a system of training a new generation of a trade or profession with on-the-job training and often some classroom study. This may also encourage practitioners to gain a license to practice in a regulated profession.

# Career Pathway – Construction





## Career Pathway - Design and Pre-Construction

Architects
Architectural and Civil Drafters
Civil Engineers
Civil Engineering Technicians
Cost Estimators
Interior Designers

## **Career Pathway – Maintenance and Operations**

Construction and Building Inspectors

\*Construction Laborers\*

Construction Managers

Electrical Power – Line Installers and Repairers

Heating, Air Conditioning, and Refrigeration Mechanics and Installers

## **Related Majors:**

Architecture Business Administration, Management and Operations

Civil Engineering Construction Engineering Design and Applied Arts

Electrical Engineering HAC, HACR, HVAC, and/or HVACR Mechanical Engineering

Plumbing Services Real Estate Systems Engineering

Textile Engineering Industrial Engineering

# Here is what Bellevue College Offers:

The Associate of Arts in Interior Studies is a two-year degree open to anyone interested in the interior design. The degree also forms the foundation for entry into the Bachelor of Applied Arts in Interior Design.

The AS Track II: MRP Civil and Mechanical Engineering is a two-year degree open for anyone interested in civil and mechanical engineering. This also prepares students to transfer to a university.

## **Bellevue College Offers:**

- ART 101 Modern Architecture and Design (5 CR)
- ART 103 American Art and Architecture (5 CR)
- ART 108 Intro to Hand and Power Tools (2 CR)
- > ART 111 Design Color (5 CR)
- CS 351 Computer Architecture I (5 CR) Offered in winter quarter only.
- ➤ ISIT 422 Application Architecture (5 CR) Offered in fall quarter only.

Current Real Estate Classes - Washington Real Estate Fundamentals and Washington Real Estate Practices

## Here are 5 jobs perfect for an Architecture graduate:

## 1) Landscape Architect

Climate changes and globalization established a need for designing outdoor landscapes, including infrastructures, public areas, and agriculture for linking our urban and rural spaces. If you enjoy working with and in the natural environment, then Storm water management, environmental restoration, and recreational areas are all involved in this career path.

## 2) Urban Planner

The state of a rapidly growing urbanism can produce an exciting career path for any architect. Ranging from economic and demographic changes to sustainable development; it requires adaptability and problem solving on a large scale. This profession has challenging and responsible dynamics.

#### 3) Restoration Architect

Conservation and restoration of our societies' buildings can be a challenge. Our heritage and history are presented through architecture which links our past and present. Preserving and restoring are often very beautiful solutions to a challenging problem.

## 4) Research Architect

How can new tools help to enhance an architects prospective? Digital designing presents methods to expressing dramatically changing improvements done by architects, not necessarily designing buildings, but helping to enhance the completed look or vision for the customer.

## 5) <u>Lighting Architect</u>

Light affects our mental and physical health, as anyone living at high latitudes can empathize with. Sustainability plays a factor in our natural environment and work environments; so improving our experiences, our health and well-being are important for this type of architecture career.

Check out the world's most visited architecture website here



## Here are 5 jobs perfect for a Construction graduate:

## 1) Construction Manager

Usually makes the highest salary within the construction industry. The main tasks of a construction manager include planning and overseeing construction activities; including budgeting, scheduling, and ensuring that the project meets its deadlines for completion.

## 2) Elevator Workers

Elevator Installers and repairmen make exceptionally high salaries. This career also involves installing and repairing escalators. Acquiring an apprenticeship where trainees learn the technical skills they will need to succeed, is key. CTE credits also help to maximize your experiences within this career path.

## 3) Electrician

Formal apprenticeships to vocational training are main requirements of this career path. The electrician journey consist of supervising maintenance personnel, repair and modification of machinery and mechanical equipment involved with buildings, utilities and facilities.

## 4) Plumber/Pipefitter

Assemble and install piping, tubing, valves, appliances such as dishwashers or water heaters, caulking, soldering, and welding equipment using hand and power tools. This career includes practical, hands-on problems and solutions. Listening and understanding what people say is important while not interrupting, and asking good questions.

#### 5) <u>Carpenter</u>

Maintaining a safe and clean environment to maintaining the regulations of specific blueprints, sketches, or building plans to prepare project layouts. Determining dimensions and materials required to construct, install, and repair structures and fixtures of wood, plywood, and wallboard with using carpenter's hand/power tools.

## Resources:

<u>Washington Technology Student Association (TSA)</u> – a Washington state student organization for students interested in technology as well as Architecture, Engineering, Construction, Manufacturing, and many other technical ares.

<u>The Associated General Contractor of America</u> – an association for the construction industry that provides resources for students interested in Building Contruction, Federal/Heavy Construction, Highway/Civil/Transportation Construction, and Utility Construction.



# **Apprenticeships**

<u>Earn While You Earn</u> — Most formal apprenticeship programs are registered with the U.S. Department of Labor (DOL). These programs prepare workers for occupations in industries such as construction, manufacturing, and healthcare. The opportunity to earn money, train for an occupation, and build a career foundation are just some of the benefits.

## Best Architecture and Construction Colleges in Washington

<u>University of Washington</u> – This Seattle Campus offers (4) Architecture and Related Services Degree programs and 6 Mechanical Engineering Degree program at a large public University in a large city.

<u>Washington State University</u> – This large public university is located in Pullman, WA and offers (3) Mechanical Engineering Degree Programs at a large public university in a far-away town.

<u>Gonzaga University</u> – This medium sized private university is located in Spokane, WA and offers (1) Mechanical Engineering Degree in a mid-sized city.

<u>Seattle University</u> – This medium sized private university is located in Seattle, WA and offers (2) Mechanical Engineering Degree programs.

<u>Eastern Washington University</u> – This large public university is located in Cheney, WA and offers (1) Mechanical Engineering Degree program in an outlying town.

∨ Filter: Degr	ee Levels Program Length Control Ty	ре		
School Logo	School Name	Average tuition	Student Teacher Ratio	Enrolled Students
W UNIVERSITY of WASHINGTON	University of Washington-Seattle Campus Seattle, WA	<b>\$ \$ \$</b> \$ \$	12:1	45,408
AC	Washington State University ♥ Pullman, WA	\$ \$ \$ \$ \$	20:1	29,686
GONZAGA	Gonzaga University  Spokane, WA	\$ \$ \$ \$ \$	15:1	7,491
<b>S</b>	Seattle University  Seattle, WA	\$ \$ \$ \$ \$	13:1	7,405
Fu !	Eastern Washington University • Cheney, WA	\$ \$ \$ \$ \$	22:1	12,361

Washington State Department of Licensing: State Board of Architects Bellevue College: Transfer Pathway Guide for Architecture



<sup>&</sup>lt;sup>1</sup> Universities.com

## <sup>2</sup>Other Schools in the area:

# King – Snohomish Area

## Bates College Technical College

- Electrical Construction (Associate Degree)
- Carpenter Technician (Certificate)
- Carpentry (Associate Degree)
- Civil Engineering Technology (Associate Degree)
- Facilities Maintenance (Associate Degree)
- Diesel & Heavy Equipment Mechanic (Associate Degree)
- Electrical Engineering Technician (Associate Degree)
- Database management and Development (Associate Degree)

## Clover Park Technical College

- Construction Technology: Construction Trades Academy Pre-Apprenticeship Program (C-TAPP)
- Construction Technology (Associate Degree)
- Interior Design (Associate Degree)
- Architectural Engineering Design (Associate Degree)

## **Edmonds Community College**

- Systems Architecture (Certificate)
- Construction Management (Associate Degree)
- Landscape Design (Associate Degree)
- Landscape Management & Installation (Associate Degree)

## **Everett Community College**

Fire Science (Associate Degree)

#### Green River College

- Carpenter Technology Residential and Light Commercial Carpentry (Associate Degree)
- Design Drafting Technology (Associate Degree)

#### **Highline College**

- Interior Design (Associate Degree)
- Drafting Design (Associate Degree)
- Online Marketing and Social Media Architect (Associate Degree)

#### Lake Washington Institute of Technology





- Civil Design Technology Emphasis in Architecture (Associate Degree)
- Construction Management (Associate Degree)
- Architectural Technology (Associate Degree)
- Design (Associate and Bachelor Degree)

## North Seattle College

- Architecture Engineering Drafting (Certificate, Associate Degree)
- Building Information Modeling (Certificate)
- Advanced Design for Manufacturing (Certificate)
- Commercial and Residential Property Management (Associate, Bachelor Degree)
- Real Estate (Certificate, Associate Degree)
- Project Management (Certificate)

## Olympic College

- Architecture/Civil Design (Certificate)
- Architecture/Civil Technician (Certificate)
- Sustainable Building Advisor (CSBAT)
- Technical Design (Certificate, Associate)
- Forklift Operator (Certificate)
- Advanced Composites Manufacturing Technology (Certificate)

## Pierce College

- Virtual Construction for Construction Management (Certificate)
- Construction Management (Certificate, Associate Degree)
- Construction Safety Technician (Certificate)

#### Renton Technical College

- Construction Management (Certificate, Associate Degree)
- Construction Trades Preparation (Certificate)
- Commercial Building Engineer (Certificate, Associate Degree)
- Computer-Aided Technology (CAD, Certificate)
- Industrial Engineering (Certificate, Associate Degree)
- Engineering Design Technology (Certificate, Associate Degree)

## Seattle Central College

- Wood Construction/Carpentry (Certificate, Associate Degree)
- Wood Construction/Cabinetmaking (Certificate)
- Wood Construction/Marine Carpentry (Certificate)

#### South Vocational Institute

Pre-Apprentice Construction Training (PACT, Certificate)

## South Seattle College



- Civil Engineering Technology (Associate Degree)
- Computer-Aided Drafting & Design Technology (Associate Degree)
- ➤ Landscape Design & Construction (Certificate, Associate Degree)

# Spokane Area

## **Spokane Community College**

- Architectural Technology (Certificate, Associate Degree)
- CAD Design & Drafting (Associate Degree)
- CAD Drafting (Certificate)
- Forklift Operator Training (Certificate)
- Utility Construction Pre-Apprenticeship (Gas or Line) (Certificate)
- Welding & Fabrication (Certificate)

## Spokane Falls Community College

➤ Interior Design (Professional Diploma, Associate Degree)

# East Side Area

## Walla Walla Community College

- Carpentry (Certificate)
- Electrical Systems Technology (Certificate)
- Energy Systems Technology (Associate Degree)
- Power Generation (Certificate)
- Residential Construction (Associate Degree)
- Welding Technology (Certificate, Associate Degree)
- Wind Energy Technology (Associate Degree)

