

# The Design, Construction and Trades Department

## AT COLUMBUS STATE COMMUNITY COLLEGE

### Construction Management



The Construction Management program prepares graduates for entry- and mid-level positions with firms that design, construct, operate and manage the industry. The job market for graduates continues to expand to replace retirees and address new challenges. Students complete project-based work in documents, drawings, estimating, materials, safety, surveying, planning, scheduling, project management, OSHA and more. Certificates offered include Building Information Modeling (BIM), Estimating/Bidding, Field Supervision, and Residential Construction Management.

#### Where will I work?

Graduates find careers in the residential, commercial and institutional marketplace, including private and public sector owners, new construction and remodeling contractors, design-build firms, infrastructure companies, testing labs, materials suppliers and more.

#### What are the starting salaries?

Average starting salaries range from \$39,000 to \$52,000, often doubling within 5–7 years.

### Landscape Design and Management



The Landscape Design and Management program gives countless opportunities to work in a field as diverse as nature itself. Mixing many construction-related fields, the program allows an individual to use engineering, horticulture, art, and communications in order to design an individually tailored career. Opportunities exist in sales, design, estimating, merchandising, contracting, maintenance, and more.

#### Where will I work?

Graduates find employment in landscape design firms, material wholesalers and retailers, commercial and private landscape facilities, and with landscape contractors, in jobs such as landscape designer, park maintenance specialist, sales associate and nursery production associate.

#### What are the starting salaries?

Starting salaries can range from \$28,000–\$38,000 per year, with ranges being higher in areas where students have additional training or experience.

### Civil Engineering



The Civil Engineering Technology encompasses the planning, design, construction and operation of all aspects of our modern infrastructure such as roads, highways, bridges, channels, public utilities, waterways and more. Students study hydraulics, material strength testing, surveying, roadway design, estimating, highway plan reading, and traffic engineering/safety. This program also offers a Surveying Certificate.

#### Where will I work?

Graduates can obtain employment in industries including architecture, construction, civil engineering, materials handling and surveying, and work in positions such as CAD technicians, contract preparation, construction inspectors, survey crew operations, and construction material quality control and assurance.

#### What are the starting salaries?

Average starting salaries can range from \$35,000–\$55,000 per year depending on experience and position.

### Architecture



The Architecture program focuses on the skills necessary to put a building together and develop the drawings necessary for the project to be constructed. Students learn building and zoning codes, environmental systems, architecture history, computer-aided drafting, product selection/specification, and building information modeling. Students in the program share common courses in materials, structures, blueprint reading and other programs in the Construction Sciences.

#### Where will I work?

Graduates can work in architectural firms, but many find positions in engineering firms, or with builders, developers, product manufacturers, retailers, and other industry related areas. Opportunities include computer aided drafting (CAD) positions, project managers, field representatives, drafters and consultants.

#### What are the starting salaries?

Average starting salaries can range from \$36,000–\$43,000\* per year depending upon the firm and the position.

\*2016 Payscale Inc.

## Geographic Information Systems



Geographic Information Systems (GIS) are used to map, manage, manipulate, maintain and model spatial data. GIS is used by people in the health care industry, farming, city/state government, mining, forestry, real estate, engineering, natural resources, transportation and utilities industries to manage location-based information. Students will learn the latest technology and software in GIS, and develop a strong background in the fundamental concepts that make GIS work.

### Where will I work?

GIS graduates can work as GIS analysts, GIS technicians, cartographic designers, database administrators, data analysts, project managers, computer modelers, regional planners, system administrators, and programmers.

### What are the starting salaries?

Salaries nationwide range between \$41,108 for an entry-level analyst to \$89,475 for a GIS supervisor.

## Heating, Ventilation and Air Conditioning (HVAC)



The HVAC Technology program prepares graduates for a wide variety of occupations in the \$150 billion mechanical environmental sciences industry. Students will learn everything to start an HVAC business, including business and general education classes, in addition to the technical classes such as refrigeration, combustion processes, circuit wiring, piping systems, automatic controls and more. The program also offers certificates in High Pressure Boiler License, Large Commercial HVAC and Residential/Light Commercial HVAC.

### Where will I work?

Graduates from the HVAC program find employment with large commercial heating and air conditioning contractors, residential mechanical contractors, parts and equipment distributors, large commercial and industrial facility maintenance departments, hospitals, custom design and new construction markets.

### What are the starting salaries?

Average starting salaries can range from \$32,000–\$42,000 per year depending on the organization.

## Skilled Trades



The Skilled Trades offer education in construction trades, carpentry, electrical work, plumbing and welding. These courses are ideal for students who are considering a career in a skilled trade, those interested in the growing field of facilities maintenance or welding technology, or those who simply want to develop skills for their own personal enrichment.

### Where will I work?

Employees in the skilled trades work in a variety of occupations depending upon their area of specialization: carpenters, electricians, sheet-metal workers, welders, etc. Regardless of your area of specialization, the job market is wide open and qualified applicants are in extremely high demand.

### What are the starting salaries?

The median starting annual wage among all skilled trade jobs is \$42,000, but it does vary depending on which field you study. Carpenters earn an average of \$53,664, while electricians average \$57,741 annually. Journeyman plumbers average \$51,804; Millwrights average \$64,062, and the average salary for a pipe welder is \$62,509.

## Environmental Science, Safety and Health



The Environmental Science, Safety and Health program teaches the skills and credentials that are needed in environmental science, industry, safety, green building, monitoring, data management, operations, instrument calibration and maintenance. Environmental and safety technicians apply the principles of science, engineering, communication, and economics to protect and enhance the safety and health of humans and of our natural resources.

### Where will I work?

Graduates of this program work for environmental consulting firms, water and wastewater treatment plants, industrial facilities, construction companies, and governmental and safety agencies. The program offers certificates for Sustainable Building, Water/Wastewater Technician, and Occupational Safety and Health.

### What are the starting salaries?

Annual starting salaries range from \$35,000 to \$45,000.

For more information about degree programs and certificates in the Design, Construction and Trades Department, please email [construct@cscc.edu](mailto:construct@cscc.edu), or call (614) 287-5949.