

Short-Term Training

Building Trades

Frederick Community College's short-term career training programs provide essential knowledge, skills and experience required by today's high-demand industries. Most training programs can be completed in less than a year. These affordable programs are designed to prepare individuals for direct entry into the workforce.

Electrical

Program: Credit

Field: Building Trades

Related Job Titles:

- Electrical Helper
- Electrical Apprentice

Job Outlook: According to the U.S. Bureau of Labor Statistics, employment of electricians is expected to grow 23 percent from 2010 to 2020, faster than the average for all occupations. Residential, commercial and government buildings continue to need new, updated and additional wiring services, with a focus on alternative power generation. Employment growth is dependent on government policy and changes in the economy.

Median Wage: The Median Annual Wage for a fully-trained electrician is 48,250. Wages vary based on the electrician's experience, skill level and industry of employment.

Description of Work: An electrical apprentice's main focus is the accumulation of on-the-job training while working indoors and outdoors servicing homes, businesses, factories and construction sites. On the job, work is performed under the supervision of experienced electricians. Drilling holes, setting anchors and attaching conduit are early responsibilities along with cleaning work areas and assisting with tool and equipment maintenance. Tasks later include managing conduit and wiring installation followed by extensive training in order to create complete electrical system diagrams. Successful apprentices consistently work toward mastering all the main tasks of an electrician.

Training Period:

8 months

Credits:

11 Credits

Upon Successful Completion:

Letter of Recognition. Licensing and apprenticeship requirements vary by county within the state of Maryland.

HVAC

Program: Credit

Field: Building Trades

Related Job Titles:

- HVAC helper
- HVAC apprentice

Job Outlook: According to the U.S. Bureau of Labor Statistics, employment of heating, ventilation and air conditioning (HVAC) technicians is expected to grow 34 percent from 2010 to 2020, much faster than average for all occupations. Commercial and residential building construction is fueling employment growth as the construction industry continues to recover from the recent recession. Employment growth is dependent on government policy and changes in the economy.

Median Wage: The Median Annual Wage of a fully-trained HVAC technician is \$42,530 per year. Wages vary based on the technician's experience, skill level and industry of employment.

Description of Work: Heating, ventilation, air conditioning and refrigeration (HVAC) technicians work on heating, ventilation, cooling, and refrigeration systems to provide optimal air quality in many types of physical structures including homes, businesses, factories, government facilities and more. On the job, work is performed under the supervision of experienced technicians and may include carrying materials, insulating refrigerant lines or cleaning furnaces. With experience, additional assigned tasks may include cutting and soldering pipes and sheet metal and checking electrical and electronic circuits.

Training Period:

8 months

Credits:

11 Credits

Upon Successful Completion:

Letter of Recognition. Students are also prepared for Environmental Protection Agency (EPA) certification.

Welding

Program: Credit

Field: Building Trades

Related Job Titles:

- Entry level Welder
- Entry level Brazier
- Entry level Bolderer

Job Outlook: According to the U.S. Bureau of Labor Statistics, employment of welders, cutters, solderers, and brazers is expected to grow 15 percent from 2010 to 2020, about as fast as the average for all occupations. The basic skills of welding are the same across industries, so welders can easily shift from one industry to another, depending on where they are needed most. Properly skilled welders with up-to-date training often have the best job prospects.

Median Wage: The Median Annual Wage for a fully-trained welder is \$35,450. Wages vary based on the welder's experience, skill level and industry of employment.

Description of Work: Welding, the process of melting and fusing metal pieces to form a permanent bond, is applied in construction, manufacturing, shipbuilding, aerospace applications and more. Before utilizing equipment to produce a final product, welders review specifications, calculate dimensions and inspect structures to be welded. Soldering and brazing workers use molten metal to join two pieces of metal whereby the metal added during the process has a melting point lower than that of the piece, so only the added metal is melted, not the piece. The type of work and equipment varies depending on the industry.

Training Period:

8 months

Credits:

11 Credits

Upon Successful Completion:

Letter of Recognition. Opportunity to certify welds in AWS D1.1 (Structural Welding Code—Steel), 3G and 4G positions.

Building Trades programs are available as either credit or continuing education options. Please see reverse side for information.



Frederick Community College

www.frederick.edu

Do great things

Short-Term Training Programs

Short-term training programs are especially designed to provide applicable new career skills and essential knowledge in less than a year.

Continuing Education

Continuing Education (CE) training programs encompass a selection of courses offering valuable educational opportunities in a variety of learning environments. The benefits of being a continuing education student include:

Flexibility - Courses are available on-campus, off-campus, online and periodically at a location determined to be optimal for learning.

Scheduling - Day, evening and weekend programs are scheduled throughout the year with program duration ranging from one-time classes to semester-long courses. Class start dates also extend throughout the traditional semester months.

Costs - Overall program costs are generally lower than credit courses. Select continuing education scholarships are available and some programs offer extended payment plans.

Instructors - FCC seeks out the best of the best and teams up with subject-matter experts fully immersed in the topic at hand, in order to provide extensive, relevant instruction and information to class participants.

Enrollment - Registration is available online, in person, by fax and by mail. Enrollment forms are available in our Admissions office, in class schedules, in college publications and online.

Continuing Education Certificate - Participants receive, upon successful completion of a designated course or unit of courses, a certificate acknowledging attendance and participation.

Continuing Education Units (CEUs) - Some CE programs offer this formal recognition of an individual's completion of a designated program, workshop, seminar or self-study course. Many professionals are required to earn CEUs to verify ongoing professional development.

Exam Preparation - Certification and Licensure - A number of FCC's short-term training programs serve as official exam preparation for individuals pursuing industry certifications or required licensure to advance their career, maintain credentials or increase earning potential. *(It is important to note certification, verifying an individual's expertise, is offered by professional societies and trade associations, whereas a license, issued by a state agency, indicates a person has obtained permission to work in a licensed occupation.)*

While continuing education does not award credits, many benefits including affordable, flexible and rewarding programs, are available to participants throughout the year.

Credit Programs

Students interested in credit coursework are often pursuing a career/technical certificate or a degree or are taking eligible courses in order to transfer to another college or university. Short-term training programs awarding credits are designed to provide one of the following:

Letter of Recognition - Awarded after a student's successful completion of 11 or more credits within a specific program area. Indicates the participant demonstrates basic skills and knowledge required for immediate entry-level employment in a specific career field.

Certificate - Requiring successful completion of 12 or more credits within a specialized discipline area. Certificates may often be earned in less than a year and may be applied toward an associate degree. Some program certificates are designed for individuals seeking specific job skills who do not require a degree for entry into the job market.

Short-term training programs qualify students for immediate entry into the workforce, and may also apply toward future certificates or associate degrees.

We're Here to Help! FCC student services include counseling to assist you in determining which program(s) best suit your needs as well as mentoring, tutoring, transfer advising and more.

Class Schedules and Registration. Visit our Admissions office here on campus or check the latest class schedules and register online at www.frederick.edu.