BUILDING TRADES

Frederick Community College

Program Contact

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Building Trades

The Program

This program provides students with comprehensive practical training in the areas involved in building trades technology. Heating, Ventilation, and Air Conditioning (HVAC), Welding, and Electrical tracks are available.

FCC's Building Trades program provides participants with expert knowledge, high-tech skills and hands-on experience. Industry experts provide extensive, relevant instruction in classroom and fully-equipped labs. To best fit the needs of our students, both continuing education (noncredit) and academic (credit) training programs are available at FCC.

HVAC

FCC's HVAC program prepares students for entry-level positions and apprenticeships. Most HVACR technicians learn their trade in a 3- to 5-year apprenticeship, during which time, apprentices must complete at least 144 hours of technical training and 2,000 hours of paid on-the-job training annually. Several groups, including unions and contractor associations, sponsor apprenticeship programs.

Employment of heating, ventilation and air conditioning, and refrigeration (HVACR) mechanics and installers is expected to grow 21 percent from 2012 to 2022, 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. The growing number of sophisticated climate-control systems is expected to increase demand for qualified HVACR technicians. Employment growth is dependent on government policy and changes in the economy.

Data Sources: US Bureau of Labor Statistics – 2012-2013 Occupational Outlook (www.bls.gov/ooh)
Departments of Labor: www.dol.gov and www.dllr.state.md.us

Welding

FCC's Welding Program prepares students for entry-level positions in the welding trade. Welding employers often prefer to hire trained workers with credentials, thus students successfully completing FCC's program have an advantage in the marketplace. Welders and welding machine operators with an understanding of the welding process and the ability to inspect welds are highly valued as companies prefer workers with experience and training gained at a respected facility.

Employment of welders, cutters, solderers, and brazers is expected to grow 6 percent from 2012 to 2022. Employment growth reflects the need for welders because of the importance and versatility of welding as a manufacturing process. As the basic skills of welding are the same across industries, 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.

Electrical

FCC's Electrical Program prepares students for entry-level positions and apprenticeships in the electrical trade. Most electricians learn their trade in a 4- or 5-year apprenticeship program, during which time, apprentices must complete at least 144 hours of technical training and 2,000 hours of paid on-the-job training annually. Several groups, including unions and contractor associations, sponsor apprenticeship programs.

According to the U.S. Bureau of Labor Statistics, employment of electricians is expected to grow 20% from 2012 to 2022, faster than 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. Greater efficiency and reliability of newer manufacturing plants is increasing the demand for electricians needed to install and maintain systems.

Financial Assistance

FCC participates in federal, state and local financial aid programs. Students are encouraged to apply for financial aid, and for scholarships offered by the College and community. Financial aid applications are available in the Financial Aid Office, J301, or online at www.fafsa.ed.gov. The scholarship application is available at www.frederick.edu.

Monroe Center

FCC's Monroe Center, 200 Monroe Avenue, Frederick, Maryland, 21701, is located just 3.5 miles from our main campus. The center contains state-of-the-art labs, classroom space and equipment for the building trades.

HVAC — Certificate of Accomplishment

Course		*Credits*
BLD 101	Introduction to Building Trades	3
BLD 109	Fundamentals of HVACR	4
BLD 110	Controls for HVACR	3
BLD 113	HVAC Installation & Troubleshooting	3
BLD 114	Fossil Fuels and Hydronic Heating	3
		16

HVAC — Letter of Recognition

Course		*Credits*
BLD 101	Introduction to Building Trades	3
BLD 109	Fundamentals of HVACR	4
BLD 110	Controls for HVACR	3
		10

HVAC — Continuing Education Certificate

Course		*Hours*
HVC 121	Fundamentals of HVACR	90
HVC 122	Controls for HVACR	60
HVC 123	HVAC Installation & Troubleshooting	60
HVC 125	Fossil Fuels and Hydronic Heating	60
		360

For more information about our graduation rates, the median debt of students who completed the program, and other important information, please visit our website at www.frederick.edu/gainfulemployment.

For more information on Building Trades:

Contact Amy Richardson at 240.629.7985 or email arichardson@frederick.edu

WELDING — Certificate of Accomplishment

Course		Credits
BLD 120	Welding Symbols & Blueprint Reading	2
BLD 121	Introduction to Welding	4
BLD 122	Advanced Welding: SMAW	4
Welding Elective (Choose from: BLD125, BLD 127, BLD 128)		3
BU 274	Customer Relations	3
		16

WELDING — Letter of Recognition

Course		Credits
BLD 121	Introduction to Welding	4
BLD 122	Advanced Welding: SMAW	4
		8

WELDING — Continuing Education Certificate

Course	Hours
WLD 165 Welding Symbols & Blueprint Reading	30
WLD 160 Introduction to Welding	90
WLD 161 Advanced Welding: SMAW	90
WLD 162 Advanced Welding: GTAW	60
WLD 163 Advanced Welding: GMAW	60
WLD 164 Advanced Welding: SMAW 4G	60
	390

ELECTRICAL — Certificate of Accomplishment

Course		Credits
BLD 101	Introduction to Building Trades	3
BLD 141	Fundamentals of Structural Wiring	4
BLD 142	Residential Electric	3
BLD 145	Commercial Electric	3
BLD 146	Specialized Systems	3
		16

ELECTRICAL — Letter of Recognition

Course		Credits
BLD 101	Introduction to Building Trades	3
BLD 141	Fundamentals of Structural Wiring	4
BLD 142	Residential Electric	3
		10

ELECTRICAL — Continuing Education Certificate

Course		Hours
ELC 120	Fundamentals of Structural Wiring	90
ELC 121	Residential Electric	60
ELC 122	Commercial Electric	60
ELC 123	Specialized Systems	60
		360