

CONSTRUCTION & BUILDING TRADES

 Frederick Community College



HVAC



WELDING



ELECTRICAL

For More Information:

240.629.7985 • buildingtrades@frederick.edu

Construction & Building Trades

The Program

Building Trades at FCC provides students with comprehensive practical training in Heating, Ventilation, and Air Conditioning (HVAC), Welding and Electrical programs.

Students receive expert knowledge, high-tech skills and hands-on experience from industry experts delivering extensive, relevant instruction in classrooms and fully-equipped labs. To best fit the needs of our students, both academic (credit) and continuing education (noncredit) programs are available at FCC.

HVAC

The HVAC program prepares students for entry-level HVAC positions and apprenticeships. Students receive an overview of basic thermodynamics and refrigeration theory and practice brazing, soldering and electrical troubleshooting. Students also have an opportunity to earn an EPA-608 certification (CFC card), a Federal requirement for all persons working with regulated refrigerants in the HVAC industry. Upon successful completion, students have the necessary skills and an advantage in this high-tech, fast paced trade.

Welding

The welding program prepares students for entry-level welding positions. With courses in SMAW, GMAW, and GTAW, students have the opportunity to earn 2G, 3G, and 4G SMAW welding certifications. Upon successful completion, students with the right credentials and up-to-date training often have the best job prospects and an advantage in the marketplace.

Electrical

The electrical program prepares students for entry-level electrical positions and apprenticeships. Students acquire practical skills in residential and commercial circuitry, cable installation and termination, and conduit bending as well as the ability to navigate and apply

the National Electrical Code. Upon successful completion, students have an employment advantage in the field with the opportunity to turn their knowledge into a rewarding career.

Financial Assistance

As FCC participates in federal, state and local financial aid programs, students are encouraged to apply for these opportunities offered by the College and community. Financial aid applications are available in the Financial Aid Office (J301), or online at www.fafsa.ed.gov, and scholarships applications are accessible online at www.frederick.edu.

Credit & Continuing Education

Building Trades offers most courses as Credit and Continuing Education. Both options feature expert instruction, include opportunities to work towards industry certification and require students to demonstrate competencies to successfully pass a course.

Credit students successfully completing a pre-designated sequence of courses are awarded an FCC Letter of Recognition and/or a Certificate as well as college credit to apply toward a higher degree.

While Continuing Education does not award academic credits, students receive Continuing Education Units (CEUs) to apply toward a Continuing Education Certificate.

Steps to Register

Credit students submit a free application online at www.frederick.edu and talk with an admissions and/or financial aid advisor.

Continuing Education students apply in person on campus at FCC.

Both then complete placement testing (not required if a college transcript includes a college level English course), register for classes and attend Building Trades new student orientation to get started.

HVAC

Certificate (Credit)

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 (Credit)

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

HVAC

Certificate (Continuing Education)

Course	Hours
HVC 121 Fundamentals of HVACR	90
HVC 126 Controls for HVACR	60
HVC 128 HVAC Installation & Troubleshooting.....	60
HVC 127 Fossil Fuels and Hydronic Heating	60
	360

For information on Job Outlook and Potential Earnings, please see the U.S. Department of Labor Bureau of Labor Statistics Occupation Outlook Handbook at www.bls/ooh.

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.

Frederick Community College prohibits discrimination against any person on the basis of age, ancestry, citizenship status, color, creed, ethnicity, gender identity and expression, genetic information, marital status, mental or physical disability, national origin, race, religious affiliation, sex, sexual orientation, or veteran status in its activities, admissions, educational programs, and employment. Frederick Community College makes every effort to accommodate individuals with disabilities. If you have accommodation needs, please call 301.846.2408. To request a sign language interpreter, please call 240.629.7939 or 301.846.2408 (Voice) or email Interpreting@frederick.edu. Requests for any accommodation should be made at least five working days prior to attending a scheduled event.

For more information on Building Trades:

240.629.7985 • buildingtrades@frederick.edu

WELDING

Certificate (Credit)

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
	<hr/>
	16

WELDING

Letter of Recognition (Credit)

Course	Credits
BLD 121 Introduction to Welding	4
BLD 122 Advanced Welding: SMAW.....	4
	<hr/>
	8

WELDING

Certificate (Continuing Education)

Course	Hours
WLD 165 Welding Symbols & Blueprint Reading	30
WLD 160 Introduction to Welding.....	90
WLD 161 Advanced Welding: SMAW	90
WLD 167 Advanced Welding: GTAW.....	60
WLD 166 Advanced Welding: GMAW	60
WLD 168 Advanced Welding: SMAW 4G.....	60
	<hr/>
	390

ELECTRICAL

Certificate (Credit)

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
	<hr/>
	16

ELECTRICAL

Letter of Recognition (Credit)

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

ELECTRICAL

Certificate (Continuing Education)

Course	Hours
ELC 167 Fundamentals of Structural Wiring	90
ELC 168 Residential Electric.....	60
ELC 166 Commercial Electric.....	60
ELC 169 Specialized Systems.....	60
	<hr/>
	360