

## **BUILDING MAINTENANCE**

## Associate of Applied Science

Obtain the knowledge and skill sets used in occupations found in a variety of environments. These positions are with heating and air contractors, schools, hospitals, office buildings, apartment maintenance, and plumbing contractors. Students will learn to read and interpret electrical schematics/electrical prints, AC and DC electrical principles, motor control systems, air conditioning, heating systems, refrigeration, plumbing repair and installation, boiler operation, and troubleshooting skills.

#### JOB OPPORTUNITIES FOR GRADUATES

There are a number of skilled positions/careers available to students taking this program. Positions graduates hold are HVAC technicians, plumbers, building and grounds maintenance, and many become contractors.

According to the DOL Bureau of Labor Statistics the job outlook through 2022 is good. Employment of heating, air conditioning, and refrigeration mechanics and installers is projected to grow 21 percent by 2022, faster than the average for all occupations. Commercial and residential building construction will drive employment growth as the construction industry continues to recover from the recent recession. The growing number of sophisticated climate-control systems is also expected to increase demand for qualified HVACR technicians.

Employment for plumbers is projected to grow 21% by 2022, faster than the average for all occupations. Commercial and residential building construction will drive employment growth as the construction industry continues to recover from the recent recession. Demand for plumbers will stem from new building construction and stricter water efficiency standards for plumbing systems, such as low-flow toilets and showerheads. Adding to the growth will be construction of new power plants, factories and new regulations governing sprinkler systems.

#### **SALARY**

The median annual wage for heating, air conditioning, and refrigeration mechanics and installers is \$43,640. The lowest 10 percent earned less than \$27,330, and the top 10 percent earned more than \$68,990.

The median annual wage for plumbers, pipefitters, and steamfitters is \$49,140. The lowest 10 percent earned less than \$29,020, and the top 10 percent earned more than \$84,440.

### **LOCATION**

Toledo-area Campus

## **ABOUT THE DANA CENTER**

Owens Community College continues to fulfill its mission as the region's workforce education leader by responding to labor market needs and expanding opportunities with the creation of the Dana Advanced Manufacturing Training Center, the renovated 59,000-square-foot, \$9.6 million facility focused on producing job-ready, skilled workers for in-demand careers



in skilled trades and advanced manufacturing. The Dana Center's design provides highly technical and integrated training in a modernized setting with amenities including natural lighting, glass walls and polished floors – a clean and safe environment conducive to learning.

## **OWENS.EDU**



Toledo-area Campus - (567) 661-7777 Findlay-area Campus - (567) 429-3509 School of Science, Technology, Engineering and Mathematics (567) 661-7169



# **PROGRAM CURRICULUM**

## **BUILDING MAINTENANCE**

Associate of Applied Science

## **REQUIRED COURSES**

\*The Age of Coursework for Skilled Trades (SKT) courses is 6 years - chair approval required for courses beyond that. Please refer to College Policy, Chapter 2 - Academic, 3358:11-2-22 Age of Coursework Policy.

#### **1ST SEMESTER**

ENG 111	Composition I *	Credits: 3(Lec: 3)
or		
ENG 111P	Composition I Plus *	Credits: 4(Lec: 4)
MTH 143	Applied Industrial Mathematics	Credits: 3(Lec: 3)
STM 105	Technology in Society	Credits: 2(Lec: 2)
SKT 131	Electrical Prints	Credits: 3(Lec: 3)
SKT 237	Maintenance Tools/Equipment	Credits: 3(Lec: 3)

#### **2ND SEMESTER**

PHY 143	Applied Industrial Physics	Credits: 3(Lec: 3)
SKT 170	Maintenance Electricity	Credits: 3(Lec: 3)
SKT 145	Building Print Reading	Credits: 3(Lec: 3)
SKT 150	Piping Systems	Credits: 3(Lec: 2 Lab: 2)
SKT 177	Wood/Metal Construction	Credits: 2(Lec: 1 Lab: 3)
	Business (BUS) Elective	Credits: 3(Lec: 3)
	*Select any Business (BUS) course	

## 3RD SEMESTER

PSY 111	Indust/Organization Psych	Credits: 3(Lec: 3)
SKT 176	Electricity: HVACR Principles	Credits: 2(Lec: 1 Lab: 3)
SKT 158	Refrigeration - A/C Principles	Credits: 3(Lec: 3)
SKT 165	Gas Heating Principles	Credits: 2(Lec: 1 Lab: 3)
IST 131	Computer Concepts and Apps	Credits: 3(Lec: 3)

## **4TH SEMESTER**

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SKT 115	Construction Estimating	Credits: 2(Lec: 2)	
ENV 115	OSHA 30 hour Const Safety	Credits: 3(Lec: 3)	
SKT 128	Building Energy Management	Credits: 2(Lec: 2)	
	Speech Elective	Credits: 3(Lec: 3)	
	*Select from: SPE 101, SPE 102 or SPE 210.		
	Skilled Trades Technical Elective	Credits: 7	
	*Select from: SKT 242, SKT 187, SKT 159,	SKT 181, SKT 195	



\*Ohio Transfer Module Course

More information about the Ohio Transf

More information about the Ohio Transfer Module Course can be found at www.ohiohighered.org/transfer/transfermodule

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or SKT 211

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