AG & HEAVY EQUIPMENT TECHNICIAN

CAREER PATHWAY

Bus and Truck Mechanics and Diesel Engine Specialists • First-Line Supervisors of Mechanics, Installers, and Repairers • Industrial Machinery Mechanics • Mobile Heavy Equipment Mechanics

CAREER TECHNICAL COURSE NAME

	& SUBJECT CODE	
7		
8		
9		
10		
Ĩ	Hydraulics & Pneumatics*	
	Power Trains Electronic & Electrical Systems	
1	2 Outdoor Power Technology Agricultural & Environmental Systems Capst	tone

RECOMMENDED

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ACADEMICS

INDUSTRY CREDENTIAL OPPORTUNITIES

	1: Cartification - 2 Point
puipment & Engine Training Council Driveline-Hydro quipment & Engine Training Council Diesel Engine quipment & Engine Training Council 4-Stroke Engi quipment & Engine Training Council 2-Stroke Engi orklift Operation - 2 Points Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - 1 Credit Hour) CPR / First Aid - 1 Point	ina Certification - 2 Points



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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
CDL Class A Unrestricted	160	0
Heavy Equipment Operator	270	-0
		-





*May 2023 State Occupational Employment and Wage Estimates for Ohio

Bus and Truck Mechanics and Diesel Engine Specialists	\$55,450
obile Heavy Equipment Mechanics	\$60,140
Industrial Machinery Mechanics	\$62,920
irst-Line Supervisors of Mechanics, Installers, and Repairers	\$73,700



COLLEGE CREDIT CTAG CTAIE001 2 CREDIT HOURS

Section 10230

11th GRADE

State 10215

11th GRADE

10235

12th GRADE

10190

12th GRADE

HYDRAULICS & PNEUMATICS

Students will learn to diagnose, repair and rebuild hydraulic systems and their components. Students will learn the physical and mechanical principles of both hydraulic and hydrostatic operating units. Topics include testing system components and properly maintaining hydraulic and hydrostatic circuits. Students will demonstrate contamination control and system cleanliness in both hydraulic and hydrostatic operating systems. Throughout the course, site and personal safety procedures and business practices are reinforced.

POWER TRAINS

Students will learn the physical principles of power trains, the components that transfer and control power, and how power trains are designed to function. Topics include hydraulic theory, bearings and seals along with belts, chains, and gear drives included in power trains. Students will learn how to adjust and maintain transmissions along with diagnosing power take-off devices and clutches. Throughout the course, site and personal safety procedures along with business principles are emphasized.

ELECTRONIC & ELECTRICAL SYSTEMS

Students will diagnose, test and repair the electronic and electrical components found in industrial power equipment. Students will learn the physical principles of electricity and apply this knowledge in the maintenance, diagnostics and repair of electrical and electronic systems. Students will learn the physical and mathematical principles of electronics, controllers and sensors and will learn the operation of onboard computers and programmable controllers. Site and personal safety along with business and employability skills are emphasized throughout the course.

OUTDOOR POWER TECHNOLOGY

Students will perform technical skills needed to maintain, diagnose and repair outdoor power equipment. Students will learn the theory of power and examine the aspects of repairing various engines, drive trains, and ancillary systems that make up modern small engine powered equipment. In addition, students will develop troubleshooting skills for 2- and 4-stroke engines, electrical and fuel systems. Throughout the course, site and personal safety procedures along with business principles will be emphasized.

AGRICULTURAL & ENVIRONMENTAL SYSTEMS CAPSTONE

Students apply Agricultural and Environmental Systems program knowledge and skills in a more comprehensive and authentic way. Capstones are project/ problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through partnerships, students combine classroom learning with work experience to benefit themselves and others. These can take the form of mentorship employment, cooperative education, apprenticeships and internships.



AUTO COLLISION TECHNOLOGY CAREER PATHWAY

Counter & Rental Clerks • Parts Salesperson • Metal Workers • Plastic Workers • Automotive Glass Installers & Repairers • Automotive Body & Related Repairers • Insurance Appraisers of Auto Damage • Cost Estimators

CAREER TECHNICAL COURSE NAME & SUBJECT CODE

RECOMMENDED ACADEMICS

1		
3		
1		
+-		
10		
	Collision Electrical & Mechanical Systems	
	Callicion Pointing & Retinisvillig	
	1 shiring structural inspection & repair	
12	Collision Structural Inspection & Repair Collision Nonstructural Inspection & Repair	
	Transportation Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

- Dellis Technician Certification -	12 Points
ICAR ProLevel I Refinishing Technician Certification - ICAR ProLevel Non-Structural Technician Certification	- 12 Poir
ICAR Dialoval Non-Structural Technician Contin	
Low Six Sigma Yellow Belt - 3 FUTTES	
Circling Green Belt - O Polices	
Leadership Excellence - Student - 3 Points	
Leadership Excellence Statement	
OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - 1 Credit Hour)	
CPR / First Aid - I Point	
Ohio Driver's License - I Point	
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EYE HILLS

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AND PLACEMENT & INCOME -

BHCC ADULT EDUCATION



HOURS

*May 2023 State Occupational Employment and Wage Estimates for Ohio

POSTSECONDARY

OPPORTUNITIES

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

	Parts Salesperson	\$38,270
	Counter & Rental Clerks	\$39,650
Met	al Workers & Plastic Workers	\$44,160
Automotiv	e Glass Installers & Repairers	\$48,980
Automot	ive Body & Related Repairers	\$57,360
	Cost Estimators	\$74,810
Insuran	ce Appraisers - Auto Damage	\$89,920

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COLLISION ELECTRICAL & MECHANICAL SYSTEMS

Students will perform inspections and repair electrical and mechanical damage due to collision. Topics include electrical and wiring harness, suspension, braking and cooling systems repairs. Students will service supplemental restraint systems (SRS) and ensure the integrity of the systems.

E 177012 COLLI



COLLISION PAINTING & REFINISHING

Students will restore and refinish vehicle exterior body and paint finish. Students will inspect and identify substrate, type of finish, surface condition, and film thickness; develop and execute a plan for refinishing using a total product system. Students will inspect, clean, and determine condition of spray guns and related equipment. Additionally, students will observe safety precautions when using hazardous materials.



12th GRADE

177023

12th GRADE

COLLISION STRUCTURAL INSPECTION & REPAIR

Students will perform automotive collision repair of full and unibody frames and attach non-structural components. Students will apply the skills and knowledge needed to measure and diagnose structural damage, create a parts list, and determine labor costs. Students will remove and replace damaged structural components. Emphasis will be given to joining and cutting aluminum, steel and other metals. Students will maintain tools and facilities while complying with personal and environmental safety practices.

COLLISION NONSTRUCTURAL INSPECTION & REPAIR

Students will learn the skills and knowledge of automotive body panel repairs, replacements, and adjustments. Students will analyze, document and repair nonstructural collision damage. Students will remove corrosion protection, undercoating, sealer, and other protective coatings as necessary to perform repairs. Emphasis will be given to joining and cutting aluminum, steel and other metals. Students will maintain tools and facilities while complying with personal and environmental safety practices.

TRANSPORTATION CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Transportation program in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.



AUTOMOTIVE SERVICE CAREER PATHWAY

Tire Repairers & Changers • Engine & Other Machine Assemblers • Parts Salesperson • Automotive Service Technicians & Mechanics • Training & Development Specialists • First-Line Supervisors of Mechanics • Installers & Repairers • Administrative Services Managers

CAREER TECHNICAL COURSE NAME UDIECT CODE

RECOMMENDED ACADEMICS

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5	& SUBJECT CODE	
8		
9		
10		
11	Collision Electrical & Mechanical Systems	
_	Automotive Braking Systems	
12	Ground Transportation Automotive Steering & Suspension Systems Transportation Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

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utomotive Service Excellence (ASE) Student Cer
utomotive Service Excencines utomotive Maintenance & Light Repair - 4 Points
Automotive Electrical/Electronics - 4 Points Automotive Steering and Suspension - 4 Points
Automotive Steering and Suspension
Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - 1 Credit Hour) CPR / First Aid - 1 Point Ohio Driver's License - 1 Point



POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
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		-
		0





*May 2023 State Occupational Employment and Wage Estimates for Ohio

	Tire Repairers & Changers	\$37,950
	Parts Salesperson	\$38,270
utomotive	Service Technician & Mechanics	\$47,920
Engine	& Other Machine Assemblers	\$58,440
Trainin	g & Development Specialists	\$64,620
First-Li	ne Supervisors of Mechanics, Installers & Repairers	
Admin	istrative Services Managers	\$101,170



E 177030

11th GRADE

COLLISION ELECTRICAL & MECHANICAL SYSTEMS

Students will perform inspections and repair electrical and mechanical damage due to collision. Topics include electrical and wiring harness, suspension, braking and cooling system repairs. Students will service supplemental restraint systems (SRS) and ensure the integrity of the systems.

AUTOMOTIVE BRAKING SYSTEMS

Students will perform inspections, troubleshoot malfunctions and service automotive brake systems. Students will identify poor performing hydraulic brake systems and replace malfunctioning components. Additionally, students will disable and enable supplemental restraint systems (SRS) and replace antilock brake systems components.



E 177031

12th GRADE

177023

12th GRADE

GROUND TRANSPORTATION ELECTRICAL/ELECTRONICS

Student will diagnose and repair vehicle electrical systems, including chassis electrical, charging, starting and lighting systems. Students will learn the fundamentals of direct current (DC) electronics including series, parallel, and seriesparallel circuits. Students will use electronic diagnostic tools, read schematics, and use printed and electronic resources to troubleshoot electrical circuits, test components and replace defective modules.

AUTOMOTIVE STEERING & SUSPENSION SYSTEMS

Students will perform inspections, troubleshoot malfunctions and service automotive undercarriage systems. Students will install coil and leaf springs, shock absorbers and struts, and replace wheel bearings. Students will inspect and replace automotive steering components and perform wheel alignments.

TRANSPORTATION CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Transportation program in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.





COMMERCIAL CARPENTRY CAREER PATHWAY

Carpenters Helper • Construction Laborers • Insulation Workers • Carpenters • Drywall Installers • Ceiling Tile Installers • Tapers • **Construction Equipment Operators**

CAREER TECHNICAL COURSE NAME & SUBJECT CODE

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RECOMMENDED ACADEMICS

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10		
11	Construction Safety & Crew Leadership*	
	Core & Sustainable Construction Fundamentals of Architecture & Construction	
1:	2 Structural Coverings & Finishes Construction Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

CITF Career Connections Level 1 - 4 Points	
Critic Connections Level 2 - 4 Points	S
CITF Career Connections Level 2 - 4 Points CITF Career Connections Level 3 - 4 Points	•
CITF Career Connections Level 3 - 4 Point	2
CITE Carcer Con	
CPR / First Aid - 1 Point	
a such 10 Hour Training* - 1 Point	
OSHA - 10-Hour Training* - 1 Point)
(Collope Credit - CTSOOT - 1 Clean Thom	<i>'</i>
Lean Six Sigma Yellow Belt - 3 Points	
Lean Six Sigma Yellow Bell - Journa	
Lean Six Sigma Green Belt - 6 Points	
Lean Six Sigma Green Dere 2 Point	•
Leadership Excellence - Student - 3 Point	3
Leadership Excention	
Ohio Driver's License - 1 Point	
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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
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	*May 2023 State Occupational Employment and Wage Estimates for Ohio
otherme	*May 2023 State Occupational Employment and Wage Estimates for Ohio
	Carpenters Helpers \$38,870
No.	Construction Laborers \$53,550
No.	Carpenters \$55,010
16	Insulation Workers \$58,720
D	rywall & Ceiling Tile Installers \$58,480
	Tapers \$65,670
Consti	ruction Equipment Operators \$65,990



COLLEGE CREDIT CTAG CTCON002 3 CREDIT HOURS

178000

11th GRADE

CONSTRUCTION SAFETY AND CREW LEADERSHIP

This course covers OSHA standards (30-hr OSHA) and requirements as they apply to the construction industry and crew/project management. Topics include safety and health hazards, safe practices, construction safety management, and crew management. Emphasis is on hazard identification, avoidance, control and prevention.

CORE & SUSTAINABLE CONSTRUCTION

Students will learn principles in basic safety (10-hr OSHA), construction math, hand and power tool care and operation, blueprint reading, material handling, communication and employability skills. An emphasis will be placed on safe and green construction practices.



11th GRADE

FUNDAMENTALS OF ARCHITECTURE AND CONSTRUCTION

In this first course in the career field, students will be introduced to the basic principles of architecture and construction. During this course, students will read and create construction drawings and use hand tools to create basic construction projects and models. Throughout the course, students will use hands-on skills and procedures in a laboratory setting. Additionally, students will investigate career opportunities in construction and architecture related fields.



12th GRADE

STRUCTURAL COVERINGS AND FINISHES

This course will address applications of interior and exterior finish work. Students will identify material properties and select for appropriate application. Students will install thermal and moisture protection including roofing, siding, fascia and soffits, gutters, and louvers. Students will install drywall; trim-joinery and molding and apply wall, floor and ceiling coverings and finishes. Throughout the course, the safe handling of materials, personal safety, prevention of accidents and the mitigation of hazards are emphasized.



12th GRADE

CONSTRUCTION CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Construction programs in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.



COSMETOLOGY CAREER PATHWAY

Shampooers • Cashiers • Manicurists & Pedicurists • Retail Salespersons • Hairdressers, Hairstylists & Cosmetologists • **Skincare Specialists**

CAREER TECHNICAL COURSE NAME

RECOMMENDED

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ACADEMICS & SUBJECT CODE 7 8 9 10 Hand & Foot Treatment Fundamentals & Enhancements 11 Fundamentals of Hair Cutting & Styling Fundamentals of Chemical Services 12 Skin Care Fundamentals & Enhancements Advanced Hair Cutting & Styling Advanced Chemical Services

INDUSTRY CREDENTIAL OPPORTUNITIES

Ohio State Board of Cosmetology

License of Cosmetology - 12 Points

OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - 1 Credit Hour) CPR / First Aid - I Point Ohio Driver's License - 1 Point Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points

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OPPORTUNITIES *Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

POSTSECONDARY

BHCC ADULT EDUCATION	HOURS	0
		0
		- 0
		- 0
		0



*May 2023 State Occupational Employment and Wage Estimates for Ohio

AND THEMENT & INCOME -Shampooers | \$26,380 Cashiers | \$27,880 Retail Salespersons | \$34,590 Hairdressers, Hairstylists & Cosmetologists | \$40,700 Skincare Specialists | \$51,610 Manicurists & Pedicurists | \$54,390



E 174125

11th GRADE

HAND & FOOT TREATMENT FUNDAMENTALS & ENHANCEMENTS

Students will learn the knowledge and skills to perform both manicures and pedicures. They will learn how to maintain personal hygiene and infection control. Students will give plain/oil manicures, pedicures, and hand/arm & foot/ leg massages. Enhanced hand and foot treatments using specialized products and techniques will be performed.

FUNDAMENTALS OF HAIR CUTTING & STYLING

Students will learn basic shampooing, conditioning and haircutting including trimming, wet styling and thermal styling techniques when working with natural and synthetic hair. Students will also learn infection control and safety along with the science of ergonomics.



FUNDAMENTALS OF CHEMICAL SERVICES

Students will apply basic skills, knowledge, and safety practices when giving permanent/chemical waves, curl re-forming, chemical relaxers and hair color techniques to include tinting, highlighting, bleaching, and foiling.



SKIN CARE FUNDAMENTALS AND ENHANCEMENTS

Students will apply the principles of anatomy, skin analysis, infection control and safety to safe hair removal, skincare treatments, and facial massage. Students will use electrical and manipulative facial treatments including masks, packs, make-up techniques. Students will also learn advanced skin care treatments, targeted massage, and enhancement applications using specialized products and techniques.

Bill 174130

ADVANCED HAIR CUTTING & STYLING

12th GRADE

Students will learn advanced cutting and formal styling using specialized equipment and techniques. This course offers enhanced training in current trends and razor techniques.

ADVANCED CHEMICAL SERVICES

12th GRADE

174140

Students will learn advanced chemical services using specialized products and techniques. Students will do advanced coloring, dimensional coloring, corrective techniques, texturizing, and advanced chemical wave wrapping techniques.



CRIMINAL JUSTICE CAREER PATHWAY

Transportation Security Screeners • Bailiffs • Private Detectives & Investigators • Correctional Officers & Jailers • Police & Sheriff's Patrol Officers • Detectives & Criminal Investigators • First-Line Supervisors of Police & Detectives

CAREER TECHNICAL COURSE NAME & SUBJECT CODE

RECOMMENDED ACADEMICS

7		
8		
9		
10		
-	The American Criminal Justice System* Correctional System & Services* Investigations & Forensics in Criminal Investigation Police Work & Practice in Public Safety* Law & Public Safety Capstone	ns
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INDUSTRY CREDENTIAL OPPORTUNITIES

,	Vational Incident Management 100 - 4 Points Vational Incident Management 200 - 1 Point
	National Incident Management 700 -
	National Incident Management 800 - 1 Point Bleeding Control Basics 1.0 - 1 Point
	- I Hour Training - POINC
	OSHA - 10-Hour Haining (College Credit - CTS001 - 1 Credit Hour) CPR / First Aid - 1 Point
	Loop Six Sigma Yellow Belt - 3 POINCS
	Lean Six Sigma Green Belt - 6 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points
	Ohio Driver's License - I Point



POSTSECONDARY **OPPORTUNITIES**

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BHCC ADULT EDUCATION	HOURS	0
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		- 0
		0
		-



*May 2023 State Occupational Employment and Wage Estimates for Ohio

Transportation Security Screeners	\$50,910
Bailiffs	\$52,340
Private Detectives & Investigators	\$55,170
Correctional Officers & Jailers	\$55,540
Police & Sheriff's Patrol Officers	\$72,540
Detectives & Criminal Investigators	\$88,170
Line Supervisors of Police & Detectives	\$95,360

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COLLEGE CREDIT CTAG CTCJ001 3 CREDIT HOURS

170915

11th GRADE

COLLEGE CREDIT

CTAG CTCJ001

3 CREDIT HOURS

170914

11th GRADE

THE AMERICAN CRIMINAL JUSTICE SYSTEM

This first course in the Criminal Justice pathway traces the history, organization, and functions of local, state, and federal law enforcement. Students will study criminal behavior and apply constitutional and criminal law to crime and punishment. Students will learn law enforcement terminology, classifications and elements of crime, and how various court systems are used to judge and punish offenders.

CORRECTIONAL SYSTEM & SERVICES

The correctional officer plays a critical role in the criminal justice system. In this course, students will learn institutional rehabilitation and community corrections strategies that prepare them for work in a correctional setting. The student will learn the role and responsibilities of a correctional officer including processing inmates, maintaining security in a correctional setting, and understanding inmate mental health needs.

INVESTIGATIONS & FORENSICS IN CRIMINAL INVESTIGATIONS

Forensic Science uses a structured and scientific approach to the investigation of crimes including assault, abuse and neglect, domestic violence, accidental death and homicide. Students will learn the psychology of criminal behavior and apply it to investigative procedures. Students will collect and analyze evidence through case studies and simulated crime scenes such as fingerprint analysis, ballistics, and blood spatter analysis.

Be 170913

12th GRADE

COLLEGE CREDIT CTAG CTCJ001 3 CREDIT HOURS

170346

12th GRADE

POLICE WORK & PRACTICE IN PUBLIC SAFETY

In this course, students will learn the skills necessary to prevent, detect and react to crime. Students will learn self-defense and subject control techniques, methods to conduct patrols, surveillance, and traffic procedures. Students will understand the ethical and legal responsibilities of police officers on patrol. Additionally, students will learn the operations of police and emergency telecommunication systems.

LAW AND PUBLIC SAFETY CAPSTONE

The course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Law and Public Safety in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.



CULINARY PREPARATION CAREER PATHWAY

Fast Food Cooks • Short Order Cooks • Restaurant Cooks • Institution & Cafeteria Cooks • All Other Cooks • First-Line Supervisors of Food Preparation & Serving Workers • Chefs & Head Cooks

CAREER TECHNICAL COURSE NAME **© SUBIFCT CODE**

RECOMMENDED ACADEMICS

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	& SUDJECT CODE	
7		
8		
9		
10		
11	Hospitality Fundamentals* Fundamentals of Food Production*	
	Fundamentals of Food Froductions	
	Catering & Banquet Service Operations	
1	Portourant Management	
-	Hospitality & Tourism Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

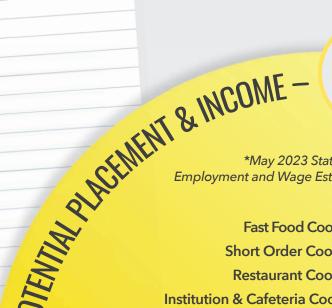
wSafe Workplace - 1 Point	_
ervSafe Food Handler - TPoint	
on Safe Allergen - I Point	_
en/Safe Person in Charge - 2 Points	
ervSafe Manager - 3 Points	
DP First Aid - I Point	_
- I Point	,
(collope (redit - CISOOI - I Clean I	10
L Signa Yellow Belt - 3 Points	
civ Sigma Green Belt - OFUILS	
Leadership Excellence - Student - 210	n
all Diverse License - 1 Point	
	rvSafe Workplace - I Point rvSafe Food Handler - I Point ervSafe Allergen - I Point ervSafe Person in Charge - 2 Points ervSafe Manager - 3 Points cPR First Aid - I Point DSHA - IO-Hour Training* - I Point (College Credit - CTS00I - I Credit H Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Poi . Ohio Driver's License - I Point



POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
		0
		- 0
		-



*May 2023 State Occupational **Employment and Wage Estimates for Ohio**

	Fast Food Cooks	\$26,500
	Short Order Cooks	\$27,900
	Restaurant Cooks	\$32,070
	Institution & Cafeteria Cooks	\$34,790
	All Other Cooks	\$37,060
First-Line Sup	pervisors of Food Preparation & Serving Workers	\$39,700
	Chefs & Head Cooks	\$53,800

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CTAG CTCF002

2 CREDIT HOURS

330100

11th GRADE

CTAG CTCF005

4 CREDIT HOURS

HOSPITALITY FUNDAMENTALS

This first course in the career field will introduce students to culinary arts, foodservice operations, lodging, travel and tourism. Students will obtain knowledge of customer service principles and examine the impact of cultural, historical, social and technological developments on key segments of the industry. They will also apply safety and sanitation techniques to prevent and control injuries, illnesses and diseases in the workplace. Business law, employability skills, leadership and communications will be addressed.

FUNDAMENTALS OF FOOD PRODUCTION

Students will prepare food products and beverages according to standardized recipes. They will apply plating and presentation principles to deliver attractive menu items, establish food specifications and prep lists, and develop ingredient and portion control guides. Safety and sanitation, standard knife skills, and culinary math will be emphasized. Employability skills, leadership and communications will also be incorporated.

330025

11th GRADE

CATERING AND BANQUET SERVICE OPERATIONS

Students will design and manage catering and banquet operations. They will recommend types of food functions and food-and-beverage services to clients, create menus for special occasions and events, and determine financial requirements. Students will hire, train, and supervise staff; manage event logistics, operations and service providers; and oversee dining room operations. Customer service; food, equipment and site safety; and high-volume food production will also be addressed.

330120

12th GRADE COLLEGE CREDIT - 3 HOURS CTAG CTCF009 COLLEGE CREDIT - 2 HOURS* CTAG CTCF001 *SERVSAFE MANAGER CERTIFICATE REQUIRED TO EARN CTAG

RESTAURANT MANAGEMENT

Students will apply management principles to plan, organize and direct restaurant staff toward goal achievement. They will hire, train, and supervise employees; establish processes to facilitate restaurant operations; and plan and design menus. Students will also forecast and schedule food production, establish food specifications, select vendors, calculate costs, and purchase food and nonfood products. Other topics include food science, nutritional analysis, business law and ethics, economics and marketing.

Bi 330130

12th GRADE

HOSPITALITY AND TOURISM CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in the program in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine class-room learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.



Buckeye Hills Career Center | 351 Buckeye Hills Road | Rio Grande, OH 45674 | 740.245.5334 | buckeyehills.net

Career-technical education does not discriminate on the basis of race, color, national origin, sex, disability, or age for participation in any program or activity. Lack of English language proficiency will not be a barrier to admission and participation in career-technical education programs or courses.

CYBER SECURITY CAREER PATHWAY

Web & Digital Interface Designers • Computer Programmers • Web Developers • Computer Systems Analysts • Information Security Analysts • Software Developers • Computer & Information **Research Scientists**

CAREER TECHNICAL COURSE NAME

RECOMMENDED ACADEMICS

	& SUBJECT CODE	
7		
8		
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7 1		
10		
11	Networking*	
	Fundamentals of Operating Systems	
	Fundamencals	
	Cybersecurity	
	La La Defence & Reinforcement	
12	Cyper Derense a m	
	Application of Artificial Intelligence	
	Application	
	Information Technology Capstone	
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INDUSTRY CREDENTIAL OPPORTUNITIES

I	NDUSTRY CREDENTIAL OFFICIATION
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0	Certiport Information Technology Specialist Cybersecurity - I Point Certiport Information Technology Specialist Cybersecurity - I Point
(Certiport Information Technology optimits
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	EC-Council Digital Polensics Council Google IT Support Professional Certificate - 4 Points
	Google IT support that
	Google Analytics - 3 Points
	Google Ads - 3 Points OSHA - 10-Hour Training [*] - 1 Point (College Credit-CTS001-1 Credit Hour)
	OSHA - 10-Hour Training - 1 Point (Coulds and
	CPR / First Aid - Point
	Olio Driver's License - Point
	Loop Six Sigma Yellow Belt - 3 Points
	Cir Siama Green Belt - 6 Points
	Leadership Excellence - Student - 3 Points
	Leadership Excellence Stand

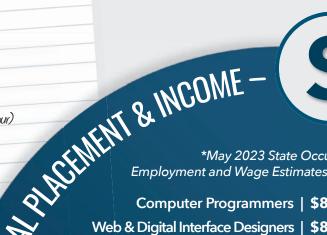


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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
		0
		- 0
		0
		-
		0



*May 2023 State Occupational Employment and Wage Estimates for Ohio

	Computer Programmers \$83,870
× w	b & Digital Interface Designers \$87,330
	Web Developers \$90,530
7	Computer Systems Analysts \$99,260
	Computer Occupations \$103,930
	Software Developers \$112,610
	nformation Security Analysts \$113,610
Computer & Inf	ormation Research Scientists \$119,540



COLLEGE CREDIT

CTAG CTIT002 **3 CREDIT HOURS**

11th GRADE

145135

NETWORKING

Students will install, operate, maintain, and troubleshoot a network. Students will learn to manage, configure, and troubleshoot network infrastructure and media. Students will discuss common network topologies and communication protocols.

FUNDAMENTALS OF OPERATING SYSTEMS

Students will perform desktop client administrator duties by providing support for users in various work environments including professional offices, small businesses, work groups, departments, and/or corporate information services (IS). Students will learn to install, configure, and update commercial and open-source operating systems.



11th GRADE

CYBERSECURITY

Students will learn the components of cybersecurity and the role each plays in preventing, detecting and mitigating vulnerabilities and attacks. Components include the security of the network infrastructure, security of the systems, and the prevention, detection, and mitigation of common vulnerabilities and attacks. Throughout this course, students will examine and implement security safeguards for desktop, network, and application security.

146010

CYBER DEFENSE & REINFORCEMENT

Students will learn the process of systematic defense for information technology systems. They will apply knowledge and skills required to secure network resources including infrastructure, operating systems, data, and applications. Students will apply the knowledge of disaster recovery and business continuity.



12th GRADE

COLLEGE CREDIT

CTAG CTCYBR001

3 CREDIT HOURS

APPLICATION OF ARTIFICIAL INTELLIGENCE

12th GRADE

This course will prepare students to apply artificial intelligence, machine learning, and neural networks to common workflows, processes, and problems in programming and design. Students will analyze the broader societal, technological, and ethical impacts and implications of its usage and

development. Students will learn how to construct prompts and queries and how to critically analyze generated responses.



INFORMATION TECHNOLOGY CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in their information technology program in a more comprehensive and authentic way. Capstones often include project/ problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.





EARLY CHILDHOOD EDUCATION CAREER PATHWAY

Teaching Assistant • Preschool Teacher • Kindergarten Teacher • Special Education Preschool, Kindergarten & Elementary • Middle School Teacher

CAREER TECHNICAL COURSE NAME

RECOMMENDED ACADEMICS

1

	& SUBJECT CODE	KONDEIMO
7		
8		
9		
10		
	Health, Safety & Nutrition* Early Childhood Education Principles* Child & Adolescent Development	
1	Child & Adolescent Development Curriculum & Instruction for Early Childhou Education & Training Capstone	od Education

INDUSTRY CREDENTIAL OPPORTUNITIES

Child Abuse Awareness & Prevention - 1 Point Communicable Disease Training for Child Care Program - 1 Point ParaPro - 6 Points Child Development Associate Credential - 12 Points CPR First Aid - 1 Point OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - I Credit Hour) Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points Ohio Driver's License - 1 Point 0



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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
		0
		- 0
		0



- 1 Point	*May 2023 State Occupational Employment and Wage Estimates for Ohio
	*May 2023 State Occupational Employment and Wage Estimates for Ohio
	Teaching Assistants (Except Postsecondary) \$34,670
No	Preschool Teacher (Except Special Education) \$36,170
EV -	Kindergarten Teacher (Except Special Education) \$67,750
6	Special Education (Preschool) \$68,630
A	Elementary Teacher (Except Special Education) \$71,970
	Special Education (Kindergarten & Elementary) \$71,970
	Middle School Teacher \$72,640



COLLEGE CREDIT CTAG CTECE002 2 CREDIT HOURS

350205

11th GRADE

COLLEGE CREDIT

CTAG CTECE001

3 CREDIT HOURS

350035

11th GRADE

350235

12th GRADE

11th GRADE

HEALTH, SAFETY & NUTRITION

Students will establish and maintain a physically and emotionally safe and healthful environment for young children. They will learn skills in first aid and CPR, identify signs and symptoms of common health issues and diseases, and develop meal and snack menus appropriate for young children of different ages and stages of development. The effects of nutrients on children's growth and development will also be emphasized.

EARLY CHILDHOOD EDUCATION PRINCIPLES

Students will examine the history and philosophy of early childhood education, types of early childhood programs, and the roles, rights and responsibilities of learners and stakeholders in early childhood education. Students will assess developmental appropriate practices; legal, ethical and organizational issues; and the challenge of teaching and caring for young children with diverse needs. Career planning and professionalism will also be emphasized throughout the course.

CHILD & ADOLESCENT DEVELOPMENT

Students will examine and apply the theoretical foundations of human growth and development to child and adolescents. Additionally, learners will determine children's learning styles; stages of social, emotional, cognitive and physical development; and needed accommodations in educational settings. Throughout the course, family and community engagement, cultural influences on learners and language growth and development will be emphasized.

CURRICULUM & INSTRUCTION FOR EARLY CHILDHOOD EDUCATION

Students will develop age-appropriate learning experiences and curriculum to engage young children. They will determine curricular goals, create lesson plans, and employ observation and assessment strategies to evaluate children's growth and development. Application of foundational principles of reading, writing, speaking, and listening skills to enhance the learner's application of literacy will be emphasized.

350400

12th GRADE

EDUCATION & TRAINING CAPSTONE

Students apply Education and Training program knowledge and skills in a more comprehensive and authentic way. Capstones are project/ problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through partnerships, students combine classroom learning with work experience to benefit themselves and others. These can take the form of mentorship employment, cooperative education, apprenticeships and internships.



ELECTRICAL, BROADBAND & TELECOMMUNICATIONS

Telecommunications Line Installers and Repairers • Telecommunications Equipment Installers & Repairers • Electrical & Electronics Repairers • Electrical Power-Line Installers & Repairers • Electrical Engineers

CAREER TECHNICAL COURSE NAME

RECOMMENDED ACADEMICS

1

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8	& SUBJECT CODE		
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3			
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7			
10			
	Intro to the Telecom-Power Industry & Safety		
"	Construction Electrical Systems		
	Broadband and Fiber		
	Broughand and sign and Powerline		
12	Telecommunications and Powerline		
	CDL / Heavy Equipment / Job Placement		

INDUSTRY CREDENTIAL OPPORTUNITIES

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PHULTINE & INCOME */ Employme */ Telecommu Electri (Con Telecom Electri The Fiber Optic Association - Certified Premises Cabling Technician - 12 Points The Fiber Optic Association - Certified Fiber Optics Technician - 12 Points Ohio State Pre-Apprenticeship - 12 Points CPR First Aid - I Point OSHA - 10-Hour Training* - 1 Point (College Credit - CTS001 - 1 Credit Hour) Lean Six Sigma Yellow Belt - 3 Points Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points Ohio Driver's License - 1 Point 0



POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	- (
Power Lineman w/CDL Class	700	
A Unrestricted		-
Telecommunications	600	
Industrial Maintenance	700	
Heavy Equipment	270	- (



*May 2023 State Occupational **Employment and Wage Estimates for Ohio**

Felecommunications Line Installers	\$56,820
& Repairers	· · · · ·

- Electrical & Electronics Repairers | \$60,280 (Commercial & Industrial Equipment)
- Telecommunications Equipment Installers | \$60,830 & Repairers
- Electrical & Electronics Installers & Repairers | \$73,720 (Transportation Equipment)
 - Electrical Power-Line Installers | \$82,500 & Repairers
 - Electrical & Electronics Repairers | \$90,410 (Powerhouse, Substation & Relay)
 - Electrical Engineers | \$102,620

PRE-APPRENTICESHIP

11th GRADE

INTRO TO THE TELECOM-POWER INDUSTRY & SAFETY

This introductory electrical course will emphasize electrical theory, materials, and equipment. Students will explore the National Electrical Code and learn worksite safety. They will interpret schematics; construct basic circuits, use test equipment and electrical hand and power tools.

PRE-APPRENTICESHIP

11th GRADE

CONSTRUCTION ELECTRICAL SYSTEMS

This introductory electrical course will emphasize electrical theory, materials, equipment. Students will explore the National Electrical Code and learn worksite safety. They will interpret schematics; construct basic circuits, use test equipment and electrical hand and power tools.

PRE-APPRENTICESHIP

11th GRADE

BROADBAND & FIBER

This introductory course presents students with the basic skills, knowledge, and certification in preparation for a career in the broadband industry. This course will cover safe workplace practices and provide an opportunity to earn certificates in OSHA and First AID/CPR. Students will be introduced to the unique working conditions of the industry which include confined space, heights, and weather. Background skills in math, digital literacy, customer service, and computer usage will be reinforced throughout the course. Students will gain technical knowledge through hands-on activities preparing students to become a Certified Premises Cabling Technician and a Certified Fiber Optics Technician through the Fiber Optics Association.

PRE-APPRENTICESHIP

12th GRADE

TELECOMMUNICATIONS & POWERLINE

The Telecommunications and Powerline course equips students with essential skills in telecommunications and high-voltage power transmission systems. It includes hands-on training in installing, maintaining, and repairing telecommunications lines, such as fiber optic and copper cabling. Students will learn outside plant operations, fiber splicing, cable lashing, and servicing damaged lines. The course also covers high-voltage power transmission principles, focusing on building and maintaining electrical systems. Safety is emphasized, especially around high-voltage equipment. Practical skills taught include ladder safety, bucket truck operations, and pole climbing, ensuring students can effectively test and troubleshoot installed systems.



HEALTH ACADEMY CAREER PATHWAY

Home Health Aide • Nursing Assistant • Phlebotomist • Medical Assistant • Medical Secretary & Administrative Assistant • Licensed Practical Nurse • Surgical Technologist • Health Information Technologist • Registered Nurse • Nurse Practitioners

CAREER TECHNICAL COURSE NAME UDUFOT CODE

RECOMMENDED
ACADEMICS

	& SUBJECT CODE	
11	Medical Terminology*	
	Drivesialos of Allied Health	
	Office Management* (Medical Office)	
	Mental Health*	
12	Patient Centered Care with Diagnostic (Pre-LPN)	
	Medical Office Management* (Medical Office) Legal Environment of Business (Medical Office)	
-	Dational Centered Care	
	Business Capstone (Medical Office)	
-	Business Capstone (Phlebotomy & EKG) Health Science Capstone (Phlebotomy & EKG)	

INDUSTRY CREDENTIAL OPPORTUNITIES

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1: und Contified F	hlebotomy reci		2 1 011100
whited FKG Tech	Inician (CEI) -	210000	
iental Health Tec	hnician - 6 Poi	nts	
ientai rieaith rec	ortified Medical	Office Assistant (N	CMOA) -
ICCT - National C	Percincul Proint		
hio Driver's Licer	IL Polt 3	Points	
ean Six Sigma Y	ellow Dell - >	Doints	
_ean Six Sigma G	reen Belt - 0	2 Doints	
Leadership Excelle	ence - Student	- 3 PUNICS	

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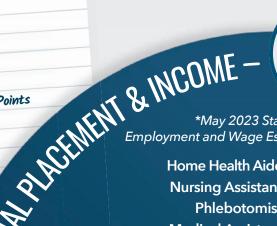
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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
Phlebotomy	150	0
Surgical Technology	1,342	
Practical Nursing	1,382	
		- 0
		- 0





*May 2023 State Occupational Employment and Wage Estimates for Ohio

	Home Health Aides	\$30,320
	Nursing Assistants	\$38,570
	Phlebotomists	\$39,010
	Medical Assistants	\$39,620
	Medical Secretaries & Administrative Assistants	\$40,160
	Surgical Technologists	\$57,140
	Licensed Practical Nurses	\$57,660
lealt	h Information Technologists	\$69,360
	Registered Nurses	\$84,430
	Nurse Practitioners	\$122,870

072150

11th GRADE **COLLEGE CREDIT - 3 HOURS CTAG CTMT001**



11th GRADE

MEDICAL TERMINOLOGY

This course focuses on the applications of the rules for constructing and defining medical terms with an emphasis on building a working medical vocabulary. Topics include using the appropriate abbreviations and symbols for anatomical, physiological and pathological classifications and the associated medical specialties and procedures. Students will decipher medical terms by identifying and using word elements with an emphasis on derivation, meaning and pronunciation. Further, students will interpret and translate medical records and documents.

PRINCIPLES OF ALLIED HEALTH

In this, first course students will apply knowledge and clinical skills necessary to assess, plan, provide, and evaluate care to patients in varied healthcare settings. Students will apply first aid principles and techniques needed for response to choking, cardiopulmonary resuscitation, and other life-threatening emergencies. Emphasis will be placed on regulatory compliance, patient safety, pathophysiology, and medical interventions. Additionally, this course introduces psychomotor skills needed to assist individuals in meeting basic human needs.

dents will learn to build relationships with clients, employees, peers and stakeholders and to assist new employees. They will manage business records, gather and disseminate information, and preserve critical

artifacts. They will also examine contracts, internal controls and compliance requirements.

OFFICE MANAGEMENT (MEDICAL OFFICE) Students will apply techniques used to manage people and information in a business environment. Stu-

Business office tools and applications will be emphasized.

11th GRADE **COLLEGE CREDIT - 3 HOURS** CTAG CTAPS001

142005

CODE

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072065

11th GRADE **COLLEGE CREDIT - 3 HOURS CTAG CTBH001**

072055 12th GRADE

142015

12th GRADE

COLLEGE CREDIT - 3 HOURS

CTAG CTMMS001

MENTAL HEALTH

Students learn contemporary mental health theories related to psychiatric disorders and mental diseases. Students will differentiate between stress, anxiety, and crisis, and identify methods to maintain mental health, including problem-solving techniques, treatment and intervention strategies. Students will assess, plan, implement and evaluate the mental health needs of the client. Additionally, students will use therapeutic communication techniques and be able to discuss documentation guidelines and the plan of care with the patient

PATIENT CENTERED CARE WITH DIAGNOSTIC (PRE-LPN)

In this course, students establish and implement treatment plans while providing primary nursing care. Topics include pharmacology, phlebotomy, mental health nursing and acute care nursing. Students use diagnostic techniques to develop patient health assessments. Emphasis is placed on the synthesis of information gathered through health history, observation, and the detection of deviations and variations from normal physical characteristics. In addition, students learn the legal and ethical principles needed

MEDICAL OFFICE MANAGEMENT (MEDICAL OFFICE)

Students will carry out procedures used to manage people and information in medical offices. Students will code medical procedures in accordance with applicable guidelines as well as use technology to convert patient information to electronic medical records. They will also manage the insurance billing and collection process, utilize a patient scheduling and registration system, and develop a compliance program. Medical office safety and security will be emphasized.

142010 UBJE 12th GRADE

LEGAL ENVIRONMENT OF BUSINESS

Legal Environment of Business examines all aspects of the law within businesses, including the judicial system, differences between types of laws and origins of laws, administrative and employment laws and laws impacting individuals. Learners will develop knowledge and skills for conducting legal research and complying with applicable regulations and requirements. This course also includes learning outcomes in contract management and business governance

PATIENT CENTERED CARE

12th GRADE

072050

Students will apply psychomotor nursing skills needed to assist individuals in meeting basic human needs. Students will implement interventions following a nursing assistant plan of care. Students will collect patient's vital signs including temperature, pulse rate, respiration rate, and blood pressure. Students will perform phlebotomy procedures with emphasis on infection prevention, universal precautions, proper patient identification, specimen acquisition, handling, and processing. Additionally, students will observe patients' physical, mental, and emotional conditions and document any change.



HEALTH SCIENCE OR BUSINESS & ADMINISTRATIVE SERVICES CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Health Sciences or Business & Administrative services programs in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.

Buckeye Hills Career Center | 351 Buckeye Hills Road | Rio Grande, OH 45674 | 740.245.5334 | buckeyehills.net Career-technical education does not discriminate on the basis of race, color, national origin, sex, disability, or age for participation in any program or activity. Lack of English language proficiency will not be a barrier to admission and participation in career-technical education programs or courses.

HEATING / VENTILATION / AIR CONDITIONING **HVAC CAREER PATHWAY**

General Maintenance & Repair Workers • Installation, Maintenance & Repair Workers • Heating, Air Conditioning & Refrigeration Mechanics & Installers • Electricians • Plumbers, Pipefitters & Steamfitters • Electrical & Electronics Installers & Repairers, Transportation Equipment • Electrical Power-Line Installers & Repairers

CAREER TECHNICAL COURSE NAME & SUBJECT CODE

RECOMMENDED ACADEMICS

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7		
8		
9		
10		
11	Mechanical, Electrical & Plumbing Systems Residential Electrical Systems	
12	Heating & Cooling Systems HVAC Refrigeration Construction Capstone	
	Construction capsione	

INDUSTRY CREDENTIAL OPPORTUNITIES

	UVAC Support Technician - 12 Poi
Jorth American Technician Excellence	- HVAC Support Technician - 12 Poi Refrigerant Recovery Universal - 12 Po
nuironmental Protection Agency (EPA)	Ketrigerant Recovery
ODP First Aid - I POINT	
10 Hour Training* - Point	
(Calloop (redit - CTSOOI - 1 Crean	t Hour)
L in Six Sigma Yellow Belt - 3 Poir	nus
Cir Sioma Green Belt - O POIN	163
Leadership Excellence - Student - 3	Points
Ohio Driver's License - 1 Point	2
UNIO Driver's cleanas	N
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POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
		0
		-0
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		0



*May 2023 State Occupational **Employment and Wage Estimates for Ohio**

Installation, Maintenance & Repair Workers	\$46,530
General Maintenance & Repair Workers	\$49,870

- Heating, Air Conditioning & Refrigeration | **\$58,390** Mechanics & Installers
 - Electricians | \$64,360
 - Plumbers, Pipefitters & Steamfitters | \$67,630
- Electrical & Electronics Installers & Repairers | \$73,720 Transportation Equipment
 - Electrical Power-Line Installers & Repairers | \$82,500



178008

11th GRADE

MECHANICAL, ELECTRICAL & PLUMBING SYSTEMS

Students learn physical principles and fundamental skills across mechanical systems in construction. Students will select materials, assemble, and test basic electrical circuits. Students will select materials and assemble simple copper and plastic plumbing applications for both supply and drains. They will perform simple maintenance of electric motors, electric fixtures, and plumbing fixtures. Students will be able to select and install basic ductwork components and learn the operation and maintenance of heating and cooling equipment.

RESIDENTIAL ELECTRICAL SYSTEMS

This course will emphasize electrical theory, materials, equipment and general methods used in residential construction. Students will navigate the National Electrical Code, learn worksite safety and understand licensing and permitting requirements. They will interpret plans and job specifications and calculate loads and service requirements. Students will install, test and repair receptacle outlet, lighting and small appliance circuits. They will understand circuit protection concepts and install a subpanel. Specialty circuit installation will be addressed.

178012

11th GRADE

HEATING & COOLING SYSTEMS

Students will apply principles of heating and cooling to the installation, troubleshooting, and maintenance of residential and commercial Heating, Ventilation, and air conditioning/Refrigeration(HVAC/R) Systems.

178013

12th GRADE

178029

12th GRADE

HVAC REFRIGERATION

Students will install, troubleshoot, and service residential and commercial refrigeration systems. Students will learn the laws of thermodynamics, pressure and temperature relationships, the refrigeration cycle, and refrigerant management. Students will address hydronic systems, chilled water systems, package units, and cooling towers.

CONSTRUCTION CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in Construction programs in a more comprehensive and authentic way. Capstones often include project/problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community]partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.



WELDING TECHNOLOGIES CAREER PATHWAY

Plating Machine Setters, Operators & Tenders • Metal Workers & Plastic Workers • Welding, Soldering, Blazing Machine Setters, Operators & Tenders • Heat Treating Equipment Setters, Operators & Tenders • Welders, Cutters, Solderers & Blazers • Tool Grinders, Filers & Sharpeners • Structural Metal Fabricators & Fitters • Sheet Metal Workers

CAREER TECHNICAL COURSE NAME

RECOMMENDED CADEMICS

5	& SUBJECT CODE	ACADEMICS
7		
8		
9		
10		
	Welding Technologies Shielded Metal Arc Welding	
12	Gas Metal Arc Welding Gas Tungsten Arc Welding Manufacturing Capstone	

INDUSTRY CREDENTIAL OPPORTUNITIES

A DE L'Entique (MAL)	Plate -	9 Points
American Welding Society (AWS) Qualification GMAW	Plate	9 Points
American Welding Society (AWS) Qualification Griffic American Welding Society (AWS) Qualification SMAW American Welding Society (AWS) Qualification GTAW	Plate -	9 Points
10 Hour Training - Poinc		
(College Credit - CISOUI - I Credit Hours)		
CPR First Aid - I Point		
Ohio Driver's License - Point		
Lean Six Sigma Yellow Belt - 3 Points		
Lean Six Sigma Green Belt - 6 Points Leadership Excellence - Student - 3 Points		I.S.
Leadership Excellence Status		\leq
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EYE HILLS CENTER

POSTSECONDARY **OPPORTUNITIES**

*Indicates statewide articulated credit. Please reference course descriptions for semester hours and agreement number on the postsecondary articulated credits. Additional college credit may be available through bi-lateral agreements. Please see a school counselor for details on available bi-lateral agreements.

BHCC ADULT EDUCATION	HOURS	0
Welding	600	0
		- 0
		-



*May 2023 State Occupational Employment and Wage Estimates for Ohio

Y Ope	Plating Machine Setters, erators & Tenders (Metal & Plastic)	\$42,030
	tal Workers & Plastic Workers	
tructu	ral Metal Fabricators & Fitters	\$47,670
/elding	g, Soldering, Brazing Machine Setters, Operators & Tenders	\$48,100
Hea Oper	t Treating Equipment Setters, ators & Tenders (<i>Metal & Plastic</i>)	\$49,110
/elder	s, Cutters, Solderers & Blazers	\$49,510
Tool	Grinders, Filers & Sharpeners	\$54,830
	Sheet Metal Workers	\$60,910

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176009

11th GRADE

WELDING TECHNOLOGIES

Students will use fundamental welding principles involving shielded metal arc, oxyacetylene, gas tungsten and gas metal arc welding in the flat, horizontal and vertical positions. An emphasis is given to electrode selection, equipment setup, operating procedures, welding inspection and testing. Students will learn joint designs and layout and will be introduced to welding codes and standards. Additional topics include employability skills, and an emphasis will be given to personal safety.



SHIELDED METAL ARC WELDING

Students will be able to use the Shielded Metal Arc Welding process (SMAW) to safely join various types of metal. They will perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode and adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply quality control factors to evaluate the quality of welds.



GAS METAL ARC WELDING

Students will use the Gas Metal Arc Welding process (GMAW) to safely join various types of metal. They will cut metals using oxy-fuel processes and perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode wire and shielding gas, and they will adjust welding equipment based on the physical characteristics and metal properties. Students will apply quality control factors to evaluate weld quality.



176008

12th GRADE

11th GRADE

GAS TUNGSTEN ARC WELDING

Students will use the Gas Tungsten Arc Welding process (GTAW) to safely join various types of metal. They will perform multiple types of welds and joints in all positions, up to and including overhead. They will select the appropriate type of electrode, filler metal and shielding gas. They will be able to adjust welding equipment based on the physical characteristics and properties of the metal. Students will apply quality control factors to evaluate weld quality.

MANUFACTURING CAPSTONE

The capstone course provides opportunities for students to apply knowledge, attitudes and skills that were learned in their information technology program in a more comprehensive and authentic way. Capstones often include project/ problem-based learning opportunities that occur both in and away from school. Under supervision of the school and through community partnerships, students may combine classroom learning with work experience. This course can be delivered through a variety of delivery methods including cooperative education or apprenticeship.

