





## Gateway Academy to Innovation & Technology Course Guide 2021-2022

Technology Campus 705 N. Elm Street Hopkinsville, KY 42240 270-887-7030 Health Science Campus 715 North Drive Hopkinsville, KY 42240 270-887-7033















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## #WeAreGateway I AM GATEWAY! Are YOU Gateway?

An excellent Gateway Team works hard to create a safe learning environment where scholars can be innovative, challenged, and industrious. We seek to hire the best experts in each field of study to prepare scholars for what comes next ~ whether that be college, career, or something else (maybe an entrepreneur)! The Gateway Team has high expectations for each scholar on a daily basis. Scholars willing to meet the daily challenge should apply today!

I AM GATEWAY ~ Gateway Academy offers many opportunities for experiences beyond the classroom. Is your dream to be on the Food Network...you can begin that dream in our Culinary program! Is your dream to help save lives...then our Allied Health or Biomedical Science programs are where you need to start! Is your dream to be in politics...you can begin that dream by joining a scholar organization such as SkillsUSA and run for local, state, or national office! Is your dream to build, program, and drive a robot to WORLD competition...then you need to join the VEX Robotics Team and get started! Is your dream to work with your hands to build tools, wire a house, lay a bead, or troubleshoot a vehicle...maybe Machine Tool (CMM Engineering), Electrical Construction (Electrical Construction Engineering), Welding (Welding Engineering), or Automotive Technology (Automotive Engineering) is for you! Is your goal to earn college credit and industry certification...many of the Gateway programs offer the opportunity to do so! Whatever your dream or goal...Gateway can help you get there!

Are YOU Gateway? Are you willing to work hard, rise to the challenge, and be the best you can be? Are you willing to come to school every day ready to learn? Are you ready to choose a pathway, set goals, and work hard to meet the demands of that path? If so, apply today! We eagerly await your arrival. Gateway is not a place...it is an EXPERIENCE!

#### **Co-Curricular Opportunities**

As a Gateway Scholar you have opportunities to expand the learning experience through scholar organizations such as HOSA, SkillsUSA, STLP, and VEX Robotics which are offered to all enrolled scholars.

#### **Graduation Stole Requirements**

How to earn a Gateway Academy Stole:

- Be enrolled at Gateway Academy as a senior and successfully complete all coursework OR
- Pass EOP Assessment or industry certification while attending Gateway Academy Gateway Academy Stoles will be passed out at an awards ceremony held in May each year.



#### **Transportation**

Scholars are not allowed to drive to Gateway Academy. There will be special allowances for scholars involved in Co-Op, Help Desk, or college classes. The special allowances will be handled through the front office. Scholars involved in those situations must see administration prior to driving to Gateway Academy to complete appropriate paperwork.

#### Apprenticeship, Co-Op, and Internship

It is a Gateway expectation that all scholars work towards a Work Based Learning (WBL) experience. Applications are due by April 1 of the scholar's junior year. Requirements for being approved for a WBL experience include the following:

- 2.5 GPA
- No more than 3 unexcused absences during the junior year
- No Level 4+ behavior events on their high school record

<u>Internship</u> - A student internship is a type of "Work Based Experience Learning Program" for high school students who have completed extensive school-based preparation relating to an identified area of career and academic interest in the Individual Learning Plan. Internships are usually one-time experiences which should lead to course credit and/or pay.

<u>Co-Op</u> - Cooperative education is a paid educational program consisting of in-school instruction combined with program related on-the-job work experience in a business or industrial establishment. These are planned experiences supervised by the school and the employer to ensure that each phase contributes to the student's Individual Learning Plan (ILP) and Career Pathway.

Apprenticeship - The Tech Ready Apprentices for Careers in Kentucky (TRACK) pre-apprenticeship program is a partnership between the Kentucky Department of Education's Office of Career and Technical Education and the Kentucky Labor Cabinet to provide secondary students with career pathway opportunities into registered apprenticeship programs. This is a business- and industry-driven program to create a pipeline for students to enter postsecondary apprenticeship training. Upon successful completion, the student will be awarded an industry certification by the employer or training organization through the Kentucky Labor Cabinet and all on-the-job hours worked will be counted toward the apprenticeship, if applicable. The certification will also count toward the local school district's academic ready accountability index. The specifics of the TRACK program vary and interested parties will need to confer with the Office of Career and Technical Education for the implementation process. There are no costs involved except wages for the student employee. The employer must have a registered apprenticeship program with the Kentucky Labor Cabinet. For more information, please refer to: <a href="http://education.kv.gov/CTE/cter/Pages/TRACK.aspx">http://education.kv.gov/CTE/cter/Pages/TRACK.aspx</a>

The ultimate rationale for the program is that as career pathways continue to expand, if an employer is willing to implement a Registered Apprenticeship program, a pipeline at the secondary level can be developed utilizing the TRACK program.





## AEROSPACE ENGINEERING CIP 14.0201.01 High Demand

**Pathway Description:** This pathway prepares scholars to develop and evaluate aircraft, space vehicles, and their systems; apply research on flight characteristics; and develop systems and procedures for the launching, guidance, and control of air and space vehicles. Aerospace engineers design aircraft, spacecraft, satellites, and missiles. In addition, they test prototypes to make sure they function according to design.

**Example Careers:** Aerospace Engineer, Aeronautical Engineer, Astronaut, Engineering Tech.

### **KDE Suggested Academic Attainment by Completion of Pathway:**

• Minimum of Pre-Calculus

Physics

Chemistry

Grade 9	Grade 10	Grade 11	Grade 12
Engineering I	Engineering II	Aerospace Engineering	Choose One: AP Computer Science Principles
			Electrical/Electronics Engineering
			Engineering Capstone
			Engineering Internship/Co-Op
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Algebra 1 or higher	Geometry or higher	Algebra 2 or higher	Choose One: Pre-Calculus AP Calculus A/B Dual Credit Math
	Industry Certifications→	REC Foundation Pre-Engineering Certification	





## CIVIL ENGINEERING CIP 14.0801.00 High Demand

**Pathway Description:** This pathway prepares scholars to apply mathematical and scientific principles to the design, development and operational evaluation of structural, load-bearing, material moving, transportation, water resource, and material control systems; and environmental safety measures. Civil engineers design, build, supervise, operate, and maintain construction projects and systems in the public and private sector, including roads, buildings, airports, tunnels, dams, bridges, and systems for water supply and sewage treatment.

**Example Careers:** Civil Engineer, Water Resource Engineer, Agriculture Engineer, Environmental Engineer, Mining Engineer, Engineering Tech, Land Surveyor, Geotechnical Engineer, Public Works, Military Engineer, Forensic Engineer, etc.

## KDE Suggested Academic Attainment by Completion of Pathway:

- Minimum of Pre-Calculus
- Physics
- Chemistry

Grade 9	Grade 10	Grade 11	Grade 12
Engineering I	Engineering II	Civil Engineering	Choose One: AP Computer Science Principles  Engineering Capstone  Engineering Internship/Co-Op
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Algebra 1 or higher	Geometry or higher	Algebra 2 or higher	Choose One: Pre-Calculus AP Calculus A/B Dual Credit Math
Industry Certifications→		REC Foundation Pre-Eng Certification	ineering



## ELECTRICAL/ELECTRONICS ENGINEERING CIP 14.1001.00 High Demand

Pathway Description: This pathway prepares scholars to apply mathematical and scientific principles to the design, development and operational evaluation of electrical/electronic systems and their components. Electrical engineers design, develop, test, and supervise the manufacturing of electrical equipment, such as electric motors, electrical controls, instrumentation, HMI Interfaces, PLCs, industrial controls, and power generation equipment. Electrical engineers design, develop, test and supervise the manufacturing of electrical equipment, such as electric motors, radar and navigation systems, communications systems, and power generation equipment. Electronics engineers design and develop electronic equipment, including broadcast and communications systems, such as portable music players and Global Positioning System (GPS) devices.

**Example Careers:** Electronic Engineer, Electrical Engineer, Computer Hardware Engineer, Controls Engineer, Robotics Engineer, Instrumentation Engineer, Consulting Engineer, etc.

### **KDE Suggested Academic Attainment by Completion of Pathway:**

- Minimum of Pre-Calculus
- Physics
- Chemistry

Grade 9	Grade 10	Grade 11	Grade 12
Engineering I	Engineering II	Electrical-Electronics Engineering	Choose One: AP Computer Science Principles
			Engineering Capstone
			Engineering Internship/Co-Op
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Algebra 1 or higher	Geometry or higher	Algebra 2 or higher	Choose One: Pre-Calculus AP Calculus A/B Dual Credit Math
Industry Certifications→		REC Foundation Pre-Engineering Certification	



## MECHANICAL ENGINEERING CIP 14.3501.00 High Demand

**Pathway Description:** This pathway prepares scholars to apply mathematical and scientific principles to the design, development and operational evaluation of physical systems used in manufacturing and end-product systems for specific uses including machine tools, jigs and other manufacturing equipment; stationary power units and appliances; engines; self-propelled vehicles; housings and containers; hydraulic and electric systems for controlling movement; and the integration of computers and remote control with operating systems. Mechanical engineers design, develop, build, and test mechanical and thermal sensors and devices, including tools, engines, and machines.

**Example Careers:** Mechanical Engineer, Industrial Designer, Industrial Engineer, Aerospace/Aviation Design, Biosystems Engineer, Manufacturing Manager, etc.

## KDE Suggested Academic Attainment by Completion of Pathway:

- Minimum of Pre-Calculus
- Physics
- Chemistry

Grade 9	Grade 10	Grade 11	Grade 12
Engineering I	Engineering II	Mechanical Engineering	Choose One: AP Computer Science Principles
			Electrical/Electronics Engineering
			Engineering Capstone
			Engineering Internship/Co-Op
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Algebra 1 or higher	Geometry or higher	Algebra 2 or higher	Choose One: Pre-Calculus AP Calculus A/B Dual Credit Math
Industry Certifications→		REC Foundation Pre-Engineering Certification <b>OR</b> REC Foundation Robotics Certification	



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## AUTOMOTIVE MAINTENANCE AND LIGHT REPAIR TECHNICIAN CIP 47.0604.01

**Pathway Description:** This pathway prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. It includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmission and drive trains, and heating and air conditioning systems.

**Example Careers:** Automotive Engineer, Service Manager

Grade 9	Grade 10	Grade 11	Grade 12
Automotive Maintenance & Light Repair Section A/ Automotive Maintenance & Light Repair Section B	Automotive Maintenance & Light Repair Section C/ Automotive Maintenance & Light Repair Section D	Special Problems I (Auto)/ Shop Management	Special Problems II (Auto)/ Special Problems III (Auto)  OR  Co-Op I (Auto)
	Industry Certifications→	→ ASE Student Certification Automotive Maintenance & Light Repair (MLR)	



## INDUSTRIAL MAINTENANCE TECHNOLOGY (IMT) MAINTENANCE MACHINIST CIP 47.0303.03 High Demand

**Pathway Description:** Maintenance machinists set up and operate a variety of machine tools and fit and assemble parts to fabricate or repair machine tools and maintain industrial machines, applying knowledge of mechanics, shop mathematics, metal properties, ayout, and machining procedures. They observe, listen to and diagnose operating machinery or equipment to correct machine malfunction and determine need for adjustment or repair.

**Example Careers:** Service Manager, Machine Operator, Machinist Technician, Machinist, Maintenance Machinist, CNC Machine Operator, CNC Programmer, Mechanical Engineer, Industrial Engineer, etc.

Grade 9	Grade 10	Grade 11	Grade 12
Blueprint Reading for Machinists/ Fundamentals of Machine Tools - A	Fundamentals of Machine Tools - B/ Applied Machining I	Maintaining Industrial Equipment/ Introduction to 3D Printing Technology	Internship (Ind Maint)
Industry Certifications→		OSHA 10 <b>AND</b> MSSC - Certified Production Technician (CPT)	



## INDUSTRIAL ELECTRICIAN ASSISTANT/SKILLED TRADES CONSTRUCTION ELECTRICAL TRACK PRE-APPRENTICESHIP CIP 46.0302.02 CIP 46.0302.99

**High Demand** 

**Pathway Description:** This pathway prepares scholars to apply technical knowledge and skills to install, operate, maintain, and repair electric apparatus and systems in residential, commercial, and industrial electric-power wiring, DC and AC motors controls, and electrical distribution panels. The pathway includes instruction in the principles of electronics and electrical systems, wiring, power transmission, safety, industrial and household appliances, job estimation, electrical inspecting and inspection, and applicable codes and standards. Instruction includes the principles of electronics and electrical systems, wiring, power transmission, safety industrial and household appliances, job estimation, electrical testing and inspection, and applicable codes and standards.

**Example Careers:** Electrical Engineer, Electrical Engineering Tech, Electrician

Grade 9	Grade 10	Grade 11	Grade 12
Circuits I/ Electrical Construction I	Circuits II/ Electrical Construction II	Electrical Motor Controls/ Rotating Machinery Electrical Motor Controls	Co-Op (Electrical) OR Special Problems - Electrical Technology/ Special Topics - Electrical Technology
	Industry Certifications→	OSHA 10 <b>AND</b> TRACK Pre-Apprentices OSHA 10 <b>AND</b> National Center for Cons Research (NCCER) - C National Center for Cons Research (NCCER) - E Level 1	truction Education ore Curriculum truction Education







## WELDER-ENTRY LEVEL CIP 48.0508.01 High Demand

**Pathway Description:** An entry level welder demonstrates the ability to assist lead welders in the fabrication of steel and metal structures. Scholars must be adept at performing basic welding functions and calculating dimensions as well as operating power equipment, grinders and other related tools. Scholars must be proficient in reading and interpreting basic blueprints and following work procedure specifications (WPS).

**Example Careers:** Pipe Welder, Certified Welding Inspector (CWI), Certified Welding Educator (CWE), Welding Engineer, Structural Engineer, Mechanical Engineer, etc.

Grade 9	Grade 10	Grade 11	Grade 12		
Gas Metal Arc Welding and Lab/ GMAW Groove Lab	Shielded Metal Arc Welding (SMAW) and Lab/ SMAW Open Groove Lab	Blueprint Reading for Welding/Cutting Processes	Co-Op I (Welding) OR Welding Certification/ Special Problems (Welding)		
Industry Certifications→		2-F (AWS) Welding			

## **Computer Science**

## COMPUTER PROGRAMMING CIP 11.0201.01 High Demand

**Pathway Description:** The Computer Programming pathway courses will prepare scholars to design and create apps, as well as troubleshoot the latest programming languages used in industry. Upon completion of this career pathway, scholars will be prepared for an entry level position in the IT field or continue their education in computer programming.

**Example Careers:** Computer Software Engineer, Database Developer, Computer Hardware Engineer, Computer Network Specialist, Web Developer, Information Security Analyst, Computer Programmer, IT Project Manager

Grade 9	Grade 10	Grade 11	Grade 12
Computer Literacy/ Introduction to Programming	Computational Thinking/ AP Computer Science Principles	Project-Based Programming/ JavaScript	Computer Science Co-Op OR Object-Oriented Programming I/ Object-Oriented Programming II
Industry Certifications→		Certiport Digital Literacy IC3 AND Microsoft Technology Associate: Introduction to Programming Using JavaScript OR CTE EOP Assessment for Articulated Credit	



## INFORMATION SUPPORT & SERVICES CIP 47.0104.01 High Demand

**Pathway Description:** The Information Support and Services pathway focuses on the design of computing systems. The courses include instruction in the principles of computer hardware and software components, algorithms, databases, and telecommunications.

**Example Careers:** Computer Trainer, Customer Service Representative, Data Entry Clerk, Electronics Repair, Quality Control, Computer Support, Technical Writer, etc.

Grade 9	Grade 10	Grade 11	Grade 12
Computer Literacy	Help Desk Operations	Management of Support Services	Internet Technologies
Computational Thinking			Information Technology Co-Op
Industry Certifications→		Certiport Digital Literacy IC3 AND Help Desk Institute: Customer Support Representative OR CTE EOP Assessment for Articulated Credit	

## **Media Arts**

## GRAPHIC DESIGN CIP 50.0401.00 High Demand

**Pathway Description:** The Graphic Design pathway prepares scholars to apply skills that focus on the principles and techniques for effectively communicating ideas/information and packaging products to business and consumer audiences both in digital and other formats. Topics of study in this pathway include aesthetic meaning, appreciation, and analysis; construction, development, processing, modeling, simulation and programming of interactive experiences; transmission, distribution and marketing; contextual, cultural and historical aspects and considerations

**Example Careers:** Creative Director, Film and Video Editor, Graphic Designer, Industrial/Product Designer, Marketing Manager, Multimedia Artist

Grade 9	Grade 10	Grade 11	Grade 12
Introduction to Media Arts/ Two-Dimensional Media Design	Digital Imaging/ Advanced Production Design	Interactive Design/ Video Studio Fundamentals	Media Arts Co-Op/ Internship OR Advanced Studio Production - Moving Images
Industry Certifications→		Adobe Certified Associat Adobe Certified Associat CTE EOP Assessment for	e: Photoshop <b>OR</b>



# Health Science Pathways @ Health Science Campus

## ALLIED HEALTH CIP 51.0000.01 High Demand

**Pathway Description:** This pathway is a general, introductory, undifferentiated, or joint pathway in health services occupations that prepares scholars for either entry into specialized training programs or for a variety of concentrations in the allied health area. Includes instruction in the basic sciences, research and clinical procedures, and aspects of the subject matter related to various health occupations.

**Example Careers:** Nurse, Pharmacist, Physical Therapist, Psychologist, Radiologist, Veterinarian, etc.

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	Allied Health Core Skills
Honors English I	Honors English II	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		NOCTI Healthcare Core	



## PLTW BIOMEDICAL SCIENCES CIP 26.0102.00

**Pathway Description:** This pathway focuses on the integrative scientific study of biological issues related to health and medicine. Includes instruction in any of the basic medical sciences at the research level; biological science research in biomedical facilities; and general studies encompassing a variety of the biomedical disciplines.

**Example Careers:** Biologist, Biomedical Engineer, Biotechnologist, Coroner, Doctor, Forensic Scientist, Pharmacist, Surgeon, etc.

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Biomedical Science/ Human Body Systems	Medical Interventions/ Biomedical Innovations	Medical Terminology/ Emergency Procedures	Pharmacy Technician
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		NOCTI Biotechnology (Online Portion Only) <b>OR</b> NHA Certified Pharmacy Technician	







## EKG TECHNOLOGY/TECHNICIAN CIP 51.0902.01

**Pathway Description:** This pathway prepares scholars, under the supervision of physicians and nurses, to administer EKG and ECG diagnostic examinations and report results to the treatment team. Includes instruction in basic anatomy and physiology, the cardiovascular system, medical terminology, cardiovascular medications and effects, patient care, EKG and ECG administration, equipment operation and maintenance, interpretation of cardiac rhythm, patient record management, and professional standards and ethics.

**Example Careers:** Diagnostic Medical Sonographer, Medical Assistant, Medical Lab Tech, Nurse, Radiologist

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	EKG Technician
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		NHA Certified EKG Technician (CET)	



#### The Health Science Academy Introduces

## **Emergency Medical Technician Program**

In partnership with Madisonville Community College (MCC) and Hopkinsville Community College (HCC), Gateway Academy will be offering an Emergency Medical Technician (EMT)

Pathway for eligible 2021-2022 CCPS Seniors.

Entry into the program will be based on a competitive application process and will be limited to 15 scholars for the first year. The 15 scholars who earn a seat in the program will have opportunities for 15 college credit hours, stackable credentials, and industry certification that will allow them to leave high school with EMT Certification and an opportunity to enroll into the HCC or MCC Paramedic Program.

The Classroom and Lab will be located at the HCC Emerging Technology Building
Class time will be Monday-Friday 8:45-11:00

#### **Fall Semester Courses**

Each course is 5 weeks
Intro to Radiography
Intro to Occupational Therapy
Intro to Surgical Technology

#### **Spring Semester Course**

18-week course with labs, ride alongs, and National Registry Exam

**EMT** 

This program is intense and will require a high degree of commitment, a desire to work in a medical career, and excellent attendance.

## Scholar Benefit Package includes (at NO cost to the scholar):

- Tuition and fees for 15 college credit hours
- Fees for testing, resources, materials, and textbooks
  - EMS Shears, Clinical Stethoscope, Pen Light
    - Flu shot and Background Check
    - EMS Uniform ~ Polo and Dark Pants
- Ambulance Ride Time in the Spring Semester to complete requirements



## EMERGENCY MEDICAL TECHNICIAN CIP 51.0904.01

**Pathway Description:** This pathway prepares scholars, under the remote supervision of physicians, to recognize, assess, and manage medical emergencies in prehospital settings and to supervise ambulance personnel. Includes instruction in basic, intermediate, and advanced EMT procedures; emergency surgical procedures; medical triage; rescue operations; crisis scene management and personnel supervision; equipment operation and maintenance; patient stabilization, monitoring, and care; drug administration; identification and preliminary diagnosis of diseases and injuries; communication and computer operations; basic anatomy, physiology, pathology, and toxicology; and professional standards and regulations.

**Example Careers:** Emergency Medical Technician

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Emergency Medical Technician (EMT)	EMS Training
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		EMT - Basic National Certification	



## MEDICAL ADMINISTRATIVE ASSISTING CIP 51.0710.00 High Demand

**Pathway Description:** This pathway prepares scholars, under the supervision of office managers and other professionals, to perform routine administrative duties in a medical, clinical, or health care facility/system office environment. Includes instruction in general office skills, data processing, office equipment operation, principles of medical record-keeping and business regulations, medical/clinical office procedures, and communications skills.

**Example Careers:** Medical Office Manager, Medical Billing and Coding, Medical Records Manager, Medical Administrative Assistant, Clinical Manager, Hospital Administration

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Medical Office Procedures	Internship: Medical Administrative Assistant
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honor Chemistry
Industry Certifications→		NHA Billing and Coding Specialist (CBCS) <b>OR</b> NHA Certified Medical Administrative Assistant (CMAA)	







## PATIENT CARE TECHNICIAN CIP 51.1614.00

**Pathway Description:** This pathway prepares scholars for admission to a professional program in nursing. This pathway focuses on caring for patients in an acute care setting.

Example Careers: CNA, Nursing

Grade 9	Grade 10	Grade 11	Grade 12	
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	Acute Care Basic Skills	
Honors English 1	Honors English 2	AP Language & Composition	English 101/102	
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry	
Industry Certifications→		NHA Patient Care Technician/Assistant (CPCT/A)		





## PHARMACY TECHNICIAN CIP 51.0805.01

**Pathway Description:** This pathway prepares scholars, under the supervision of pharmacists, to prepare medications, provide medications and related assistance to patients, and manage pharmacy clinical and business operations. Includes instruction in medical and pharmaceutical terminology, principles of pharmacology and pharmaceutics, drug identification, pharmacy laboratory procedures, prescription interpretation, patient communication and education, safety procedures, record-keeping, measurement and testing techniques, pharmacy business operations, prescription preparation, logistics and dispensing operations, and applicable standards and regulations.

Example Careers: Pharmacy Technician

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	Pharmacy Technician
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		NHA Certified Pharmacy Technician	



## PHLEBOTOMY TECHNICIAN CIP 51.1009.01

**Pathway Description:** This pathway prepares scholars, under the supervision of physicians and other healthcare professionals, to draw blood samples from patients using a variety of intrusive procedures. Includes instruction in basic vascular anatomy and physiology, blood physiology, skin puncture techniques, venipuncture, venous specimen collection and handling safety and sanitation procedures, and applicable standards and regulations.

Example Careers: Medical Lab Tech, Phlebotomist

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	Medical Laboratory Aide (Phlebotomist)
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		NHA Certified Phleboton	ny Technician (CPT)







## PRE-NURSING CIP 51.2699.01 High Demand

**Pathway Description:** This pathway prepares scholars for admission to a professional program in nursing. This pathway focuses on caring for residents in a long term care facility. The rigor of this course is relative to a collegiate nursing program. Excellent attendance is very important.

**Example Careers:** Licensed Practical Nurse, Nurse, Nurse Practitioner, Nursing Assistant, Physician's Assistant

Grade 9	Grade 10	Grade 11	Grade 12
Principles of Health Science	Emergency Procedures/ Medical Terminology	Body Structures and Functions	Medicaid Nurse Aide
Honors English 1	Honors English 2	AP Language & Composition	English 101/102
Honors Earth Space Science	Honors Biology	Honors Introduction to Chemistry & Physics	AP Biology OR Honors Chemistry
Industry Certifications→		Medicaid Nurse Aide (MNA)	

# Culinary & Food Services Pathway @ Home High School

## CULINARY & FOOD SERVICES CIP 12.0500.00

**Pathway Description:** This pathway addresses a skill set necessary for success in the culinary industry. The courses in this pathway will help scholars develop skills in early career ladder positions and promote continuing education at the post-secondary level preparing for careers associated with restaurants, institutional food service, hospitality and catering, as well as food and beverage operations.

Example Careers: Chef/Cook, Baker, Entrepreneur, Food Inspector, Butcher

Grade 9	Grade 10	Grade 11	Grade 12
FACS Essentials (if offered at home high school)	Foods & Nutrition	Culinary Arts I	Advanced Foods & Nutrition
		Culinary Arts II	Co-Op: Culinary Arts
Industry Certifications→		ServSafe Food Manager's Credential <b>OR</b> CTE EOP Assessment for Articulated Credit	