
Boone County Schools

Innovative Program Opportunities for Juniors and Seniors



Dual Credit Academic Opportunities

Options:

- ❑ Early College-District Organized Program housed at Gateway
- ❑ Dual Enrollment On Your Own:
 - ❑ Northern Kentucky University
 - ❑ Gateway Community College
- ❑ Gateway Technical/Trade Programs
- ❑ Fire Science
 - ❑ Gateway/Burlington Fire Department
- ❑ University of Kentucky Next Generation Scholars Program
 - ❑ Students will take classes at Ryle through UK
- ❑ Dual Enrollment At Ryle Taught By Ryle Faculty
 - ❑ Campbellsville University (Chemistry, Spanish)
 - ❑ Northern Kentucky University (French, Finance)
 - ❑ Kentucky State University (College Algebra)

For more information, please go to the Radier Basics tab on the school website and look under Student Scheduling for Dual Enrollment/Early College

Dual Credit Opportunities



Application Required for ALL Dual Enrollment Options

- 1) Students must follow the steps outlined on the Ryle Dual Enrollment handout.
- 2) Students must apply to the college they choose to attend and meet requirements of the college.
- 3) Students must schedule for at least 6 classes earning 6 high school credits. This can be a combination of high school courses and dual credit courses. Required core subject courses (English, Math, Science, and Social Studies) can be taken at the college level as well.

Gateway Technical/Trade Dual Enrollment



www.gateway.kctcs.edu-under academics and program of studies

Air Conditioning Tech

Computerized Machining and Manufacturing

Electrical Technology

Fire/Emergency Medical Technician

Industrial Maintenance Technology

Manufacturing Engineering Technology

Gateway Technical/Trade Dual Enrollment



Air Conditioning Tech

If you enjoy mechanical systems and solving problems, consider a career as a heating, air conditioning and refrigeration technician. HVAC systems control temperature, humidity and air quality where we live and work and let us store and transport food, medicine and other items needed to sustain life. These systems consist of many mechanical, electrical and electronic parts, and HVAC mechanics and technicians must be able to install, maintain, diagnose and repair them.

ACR 100 Refrigeration Fundamentals (first eight weeks) (Year 1, Fall)

ACR 101 Refrigeration Fundamentals Lab (first eight weeks) (Year 1, Fall)

ACR 102 HVAC Electricity (second eight weeks)* (Year 1, Fall)

ACR 103 HVAC Electricity Lab (second eight weeks) * (Year 1, Fall)

Computer/ Digital Literacy Course (CIT 105/ OST 105) or Competency demonstrated by exam

Gateway Technical/Trade Dual Enrollment



Computerized Machining and Manufacturing

A machinist is a person who uses machine tools to make or modify parts made primarily of metal. If you are detail-oriented, like math, enjoy solving problems and like to work to very precise specifications, you might enjoy a career as a machinist. The Computerized Manufacturing & Machining program teaches the skills and techniques necessary to excel in this field, which is a significant part of an advanced manufacturing environment.

BRX 110 Basic Blueprint Reading (first eight weeks) (Year 1, Fall)

BRX 210 Mechanical Blueprint Reading (second eight weeks) (Year 1, Fall)

CMM 110 Fundamentals of Machine Tools- A (first eight weeks) (Year 1, Fall)

CMM 112 Fundamentals of Machine Tools- B (second eight weeks) (Year 1, Fall)

CMM 118 Metrology/ Control Charts (Year 1, Spring)

MAT 110 Applied Mathematics (or MAT 116 or MAT 126 or higher-level mathematics) (Year 1, Spring)

Gateway Technical/Trade Dual Enrollment



Electrical Technology

Offered under the Manufacturing Industrial Technology curriculum, the Electrical Technology Program focuses on preparing students for various entry-level electrical positions in the industry and the building trades. The study of electrical theory in the classroom and the practical application of that theory in labs provide the foundation of this program.

ELT 110 Circuits I 5

EET 154 Electrical Construction I (first 8 weeks) (Year 1, Fall)

EET 155 Electrical Construction I Lab (first 8 weeks) (Year 1 Fall)

EET 252 Electrical Construction II (second 8 weeks) (Year 1, Fall)

EET 253 Electrical Construction II Lab (second 8 weeks) (Year 1, Fall)

Computer/Digital Literacy Course-or-Competency demonstrated by exam

Gateway Technical/Trade Dual Enrollment



Fire/Emergency Medical Technician

The Fire Science Technology program offers training to volunteer, combination and career fire departments as well as businesses, industries, ambulance services and rescue squads across Kentucky. Much of the training qualifies for college credit; credits earned are recorded by the college. Training provided by State Fire/Rescue Training staff may be acquired and accumulated to fulfill core curriculum components for program credentials.

FIR 101 Basic Firefighting I/FIR 102 Basic Firefighting II (Year 1, Fall)

FIR 103 Basic Firefighting III/FIR 104 Basic Firefighting IV (Year 1, Spring)

FIR 105 Fire Suppression/FIR 106 Intro to Special Responses (Year 2, Fall)

FIR 206 Fire/Emergency Medical Technician (Year 2, Spring)

EMT/Fire Fighting



- Half Day, Two year Program offered in collaboration with the Burlington Fire Department and Gateway.

Requirements

- 2.5 GPA or higher
- Be able to pass a Physical Fitness Test
- Classes are conducted in both morning and afternoon sessions

Gateway Technical/Trade Dual Enrollment



Industrial Maintenance Technology

Are you fascinated by machines and skilled with your hands? Do you have strong math skills? Do you like to “tinker” until you get the problem solved? Then a career in industrial maintenance may be for you. In our program, students learn how to repair and maintain the increasingly complex machines used in today’s advanced manufacturing environment. You will learn how to repair pumps, motors, engines, conveyor belts and more, and how to keep them in good working order.

ELT 110 Circuits I (Year 1, Fall)

IMT 150 Maintaining Industrial Equipment (Year 1, Fall)

IMT 151 Maintaining Industrial Equipment Lab (Year 2, Spring)

ISX 101 Industrial Safety- this course is also offered online (Year 2, Spring)

Computer/ Digital Literacy Course or Competency demonstrated by exam

Gateway Technical/Trade Dual Enrollment



Manufacturing Engineering Technology

The Manufacturing Engineering Technology program offers you an opportunity to build a rewarding career in advanced manufacturing. The program offers building blocks to increasingly sophisticated and higher-paying jobs. It is designed to prepare you to work as an engineering technician and first-line supervisor in manufacturing firms. You will gain the technical and interpersonal skills to lead projects across multiple disciplines in manufacturing firms.

ELT 110 Circuits I (Year 1, Fall)

BAS 160 Introduction to Business (Year 1, Fall or Spring)

General Education course- MAT 150 College Algebra (Year 1, Fall or Spring)

General Education course- ENG 101 Writing I (Year 1, Fall or Spring)

Computer/ Digital Literacy Course (CIT 105/ OST 105) or Competency demonstrated by exam

MFG 135 Fundamentals of Mechatronics (Year 2, Fall or Spring)

Gateway Technical/Trade Dual Enrollment



Supply Chain Management

Logistics is not a business supply “picking and packing” products for minimal hourly wages, but instead part of an interconnected and high-tech supply chain with multi-dimensional opportunities for viable, lifetime careers. With the Northern Kentucky/ Greater Cincinnati region situated as a prime national location for transportation and delivery time to the customer, the local industry is in a state of perpetual growth.

ENG 101 Writing I (Year 1, Fall)

BAS 160 Introduction to Business (Year 1, Fall)

LOM 100 Introduction to Logistics Management (Year 1, Spring)

LOM 102 Supply Chain Management (Year 1, Spring)

CIT 105 Introduction to Computers

Area Technology Center

BOONE COUNTY AREA TECHNOLOGY CENTER

3320 COUGAR PATH

HEBRON, KY 41048

PHONE 859-689-7855

Principal: Laura Williams

<http://www.boone.kyschools.us/2/Home>

Automotive Technology

Diesel Technology

Electrical Technology

Health Sciences

Machine Tool

Metal Fabrication

Welding Technology

Area Technology Center

Automotive Technology

- The Automotive Technology program is a two year long course. First year students will receive instruction in all eight areas of the ASE/NATEF certifications, to include engines and engine performance, automatic and manual drive trains, steering/suspension, brakes, HVAC and electrical. Students MUST pass all first year courses to be eligible to return for the second half of the program. Second year students will receive instruction on the same eight areas with the emphasis on the diagnostics and major repair of these systems. The majority of the instruction involves actual hands on training rather than just book work. The focus and goal of the Auto Technology program is to have a second year student well prepared to get an entry level technician position at any of the many dealerships and independent repair facilities in northern Kentucky or continue their training at the post-secondary level. This is a rigorous course that is designed to strengthen a student's mechanical skills and utilize the English, math and science skills they have acquired in their academic classes.

Diesel Technology

- This program develops skills needed to analyze malfunctions and to repair, rebuild and maintain construction equipment, farm equipment, or medium and heavy trucks. Students study and apply hands-on experience in systems such as diesel engines, fuel injection, onboard computers, transmissions, steering and suspension, and brakes.

Area Technology Center



Electrical Technology

- Electrical Technology prepares students for entry -level electrician positions in industry and building trades. Students' study and experience layout, assembly, installation, testing, maintenance of electrical circuits, apparatus, and residential wiring. Training involves electrical theory and electrical codes current in industry.

Health Sciences

- In the Health Science program, students complete orientation, exploration, and preparation into the health care industry through courses progressing toward Medicaid Nurse Aide certification. Each course integrates mathematics, science, communication and technical knowledge and culminates in a supervised practical application in the field. The program is designed for students who desire entry level training and/or plan to enroll in a post-secondary program in one of many occupational areas in the health field.

Area Technology Center

Machine Tool

- The Machine Tool Technology program is designed to prepare students to enter the machine tool trade. The first year of Machine Tool Technology training is a combination of blueprint reading, precise metal layout, operating manual lathes, mills, surface grinders, reading precision measurement tools, and computing and verifying dimensions, sizes, shapes and tolerance of machined work pieces. The student is introduced to tools, materials, equipment, and trade terms and develops the skills to do the job to industry standards. Students become acquainted with a variety of metals and learn how to use the various types of cutting tools and the required metallurgy.

Metal Fabrication

- Students in this program prepare for entry level work by creating three-dimensional objects from flat sheets of metal. These objects are mainly used in ventilation systems of residential, business and industrial structures. Metal fabricators are also increasingly called on to produce precision parts for high tech industries. Instruction includes design, pattern lay out, transfer, fabrication, and joining.

Area Technology Center



Welding Technology

- The Welding program prepares students to weld and fabricate various types of metal including casting, aluminum, stainless, and other steels using GMAW, GTAW, SMAW, and OFW welds made to industry and AWS standards. Students train in layout, blueprint reading, equipment maintenance, work orders, job site safety, and job estimating.

APPLICATION:

The ATC is open to returning students (current 11th graders that are currently in a program) or current 10th graders. Unfortunately, current 11th graders are not eligible if they are not currently in a program at the ATC.

Applications are available under Raider Basics on website. Go to Student Scheduling Information.

Homebuilders Association



The Construction Technology programs will prepare students for work in new construction, remodel, and energy auditing industries. Course offerings include everything from entry-level trades courses, all the way to national certification. Students will train at the career centers, high schools and at real jobsites. Current and traditional building practices are included, while updated and advanced framing techniques, energy efficiency, health and safety, and sustainability methods are emphasized.

This program is for juniors and seniors. It will take place three days a week at the Northern Kentucky Homebuilders Association near Mineola Pike. Transportation will be provided. There will be a fee for participating in the class to cover cost of materials. All students will be expected to take the EOP & associated Industry tests.

FOCUS AREAS: Maintenance, Masonry, and Carpentry

This program is for juniors and seniors. It will take place three days a week at the Northern Kentucky Homebuilders Association near Mineola Pike. Transportation will be provided. There will be a fee for participating in the class to cover cost of materials. All students will be expected to take the EOP & associated Industry tests.

Applications are online under Raider Basics. Go to Student Scheduling Information.

Logistics/Supply Chain at Ignite Institute



- The Logistics Program is one that focuses on the high demand Logistics and Supply Chain industry. Logistics and Supply Chain, if I had to boil it down, I would describe it as companies or people that move things from “Point A” to “Point B” and make them ultimately available to consumers like you and I. Examples of this would be:
 - Manufacturers that rely on people that work for them sending goods to retailers
 - Retailers sending goods to multiple stores they may have or even directly to consumers
 - Trucking companies – both local and cross country
 - Ground Package delivery companies (UPS and FedEx Ground)
 - Air Package delivery companies (UPS, FedEx Express, and DHL)
 - Railroads
- All of the above would be considered places where you could pursue a career in “LOGISTICS”, and I hate to say it, it is only a part of the very broad field. The Logistics courses I teach are ones that generally touch on all of these fields and then I use this knowledge to become more granular in a number of more industry/field-specific case studies and analyses later in their school years.

Logistics/Supply Chain at Ignite Institute, continued

Of note:

- It is a two year program (junior and senior year)
- Joining the program as a senior MAY be a possibility
- It is a half day program (8-10:45 AM for juniors and 11-2 PM for seniors)
- Juniors during their half days here at Ignite are taking a class of **Logistics, Math** (in-person and since the majority of students are in Algebra II this course is offered, students in Geometry or Financial Math are taking their classes on-line in Edgenuity) and **English** (on-line in Edgenuity)
- Seniors during their days here at Ignite are taking a class of **Logistics, Math** (all are in Financial Math and all wanted to take it on-line in Edgenuity) and **English** (on-line in Edgenuity)
- Most seniors have chosen to take the remainder of their course work on-line although they can choose a half-day with courses still at their home HS
- Internships are not all year long their senior year as with other colleges but only during the 2nd semester of their senior year.
- Students that are 100% virtual learning are earning 2 work-based credits while interning 8-2 PM daily. Half-day students earn 1 work-based credit interning 11-2 PM.
- All of our internships are going to be paid this year, averaging \$15.50/hour worked – this is unusual while also earning HS credit but the larger companies we are working with seem to insist on paying wages, while almost all the other programs' internships are unpaid. I cannot promise anything going forward but we will be dealing with the same companies next year.
- Companies we are placing senior students at this next semester are: DHL, Wayfair, Atlas Air Freight and Polar Air Cargo



Your Contacts

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Logistics @ Ignite: Eric Skeen, eric.skeen@boone.kyschools.us