



CTE Career Pathways

2021-2022

Table of Content

| | |
|--|----|
| Agriculture Pathways | |
| Animal Science | 3 |
| Horticulture | 4 |
| Business and Marketing | |
| Administrative Support | 5 |
| E-Commerce | 6 |
| Marketing | 7 |
| Family and Consumer Science | |
| Culinary | 8 |
| Early Childhood | 9 |
| Fundamentals of Teaching | 10 |
| ARMY JROTC | 11 |
| Logan County CTC | |
| Computer-Aided Drafting | |
| Architectural Technology | 12 |
| Mechanical Design | 13 |
| Construction | 14 |
| Electricity | |
| Electrical Technology | 15 |
| Industrial Maintenance-Electricity | 16 |
| Health Science | |
| Pre-Nursing | 17 |
| Phlebotomy Technician | 18 |
| Machine Tool | |
| Machinist Operator..... | 19 |
| CNS Operator | 20 |
| Information Technology | |
| Network Administrative | 21 |
| Information Support and Services | 22 |
| Administrative Support | 23 |
| Welding | 24 |
| Automotive | 25 |

Animal Science Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway focuses on the scientific principles that underline the breeding, care, and management of agricultural animals, and the production, processing, and distribution of agricultural animal products. This includes developing better, more efficient ways of producing and processing meat, poultry, eggs and dairy products, as well as studying genetics, nutrition, reproduction, growth and development of animals.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Principles of Agriculture

Agriscience

Animal Science (prerequisite: one agriculture course)

Ag Construction Skills (elective in agriculture dept)

*Ag Employability Skills (prerequisite: 3 agriculture courses)

*Ag Coop (prerequisite: 3 agriculture courses)

(Suggestions for Employment: Southern States, Veterinary Clinics, Tractor Supply, Farms, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|------------------------------|------------------------|--|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Principles of Agriscience | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | Agriscience | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Animal Science | | MSU online AG PSY 100, MUS 100, COMM 145, Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Ag Employment Skills/Ag Coop | | MSU online AG HIST 101/102 Math 116 WKU Rural Sociology |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Artificial Insemination Technician, Embryo Transfer Technician, Research Biologist, Breed Association Representative, Livestock Buyer, Production Manager, Veterinarian, Zoologist, etc.

Horticulture Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway focuses on the scientific principles that underlie the breeding, cultivation, and production of agricultural plants, and the production, processing, and distribution of agricultural plant products. Includes instruction in the plant sciences, crop cultivation and production, and agricultural and food products processing.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Principles of Agriculture

Agriscience

Greenhouse (prerequisite: one agriculture course)

*Floral Design (prerequisite: Greenhouse)

*Ag Employability Skills (prerequisite: 3 agriculture courses)

*Ag Coop (prerequisite: 3 agriculture courses)

(Suggestions for Employment: Southern States, Soil Conservation Office, Tractor Supply, Nurseries, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Principles of Agriscience | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | Agriscience | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Greenhouse | | MSU online AG, PSY 100, MUS 100, COMM 145, Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Floral Design or Ag Employment Skills/Ag Coop | | MSU online AG HIST 101/102 MATH 116 WKU Rural Sociology |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Plant Pathologist, Landscape Designer, Nursery Staff, Consultant in Horticulture, Ornamental Horticulturist, Writer, Horticultural Technician, etc.

Administrative Support Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway is designed to provide students an advanced level experience that will propel them in the 21st century business world as they serve in positions such as college interns, administrative assistants, graduate assistants, assistant managers, etc. Instruction includes areas of fundamental business procedures, human resource management, time management software, workstation management, travel planning, financial reporting, payroll, mail procedures, effective communication skills, and ethical decision-making skills.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Digital Literacy or Computer Literacy (dual credit-CIT 105)

Social Media and Graphic Design

Business Management

Financial Literacy (dual credit-FIN 161)

*Business Education Coop

(Suggestions for Employment: Office Receptionist, manager, Human Resource Officer, Payroll Clerk, or any other business field)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Digital Literacy or Computer Literacy-dual credit | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Social Media and Graphic Design | Health/PE | Spanish 101/102 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Business Management | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Business Ed COOP or Financial Literacy | | HIST 101/102 Math 116 FIN 161 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Administrative Assistant, Event Planner, Health Care Administrator, Hotel Manager, Human Resources Specialist, Insurance Claim Adjuster, Management Consultant, Office Manager, Paralegal, etc

E-Commerce Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway focuses on the creation, execution, transmission, and evaluation of commercial messages in various media intended to promote and sell products, services, and brands; and that prepares individuals to function as advertising assistants, technicians, and managers. Includes instruction in advertising theory, marketing strategy, advertising design and production methods, campaign methods and techniques, media management, related principles of business management, and applicable technical and equipment skills.

Required Core Courses

| |
|---|
| English 9, 10, 11 (or English 101), and 12 (or English 161) |
| Algebra I, Geometry, Algebra II, and additional higher- level math course |
| Biology, Chemistry (Conceptual Science I), and Integrated Science |
| Integrated Social Studies (or AP Human Geography), World Civilization, and US History |
| Humanities |
| Health and PE |

Required Elective Courses

| |
|---|
| Digital Literacy or Computer Literacy (dual credit-CIT 105)) |
| Social Media and Graphic Design (prerequisite: Digital or Computer Literacy) |
| Advanced Social Media and Graphic Design (prerequisite: Social Media and Graphic Design) |
| Web Design and App Development (Web Design) (prerequisite: Digital or Computer Literacy) Or Business Coop |
| Electives: Principles of Marketing, Entrepreneurship, Advanced Marketing, or Promotional Applications |
| (Suggestions for Employment: Banks, Lawyer Offices, Insurance Offices, or any business with a web presence) |

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|--|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Digital Literacy or Computer Literacy (dual credit) | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Social Media and Graphic Design | Health/PE | Spanish 101/1-2 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Advanced Social Media & Graphic Design | | Psy 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Web Design and App Dev., Coop, or another elective | | HIST 101/102 Math 116 FIN 161 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: E-Business Consultant, Economic Development Officer, Media Buyer, Retail Buyer, Webmaster, Sales Representative, Website Designer, Web Developer, Social Media Content Producer, Video Content Creator, Digital Marketer, etc.

Marketing Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principle of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher- level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Principles of Marketing

Advanced Marketing (prerequisite: Principles of Marketing)

Travel and Tourism

* Business Management, Entrepreneurship, Accounting and Finance or Financial Literacy (dual credit), or Sports and Event Marketing

(Suggestions for Employment: Retail Sales, Customer Service Representative, Advertising Firms, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Principles of Marketing | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Advanced Marketing, Travel and Tourism, or any elective | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Business Management, Travel and Tourism, or any elective | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Entrepreneurship or any elective | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Advertising Account Executive, Customer Service Representative, Fashion Retailer, Market Research Analyst, Public Relations Specialist, Purchaser, Sports Marketer, Travel Agent, Business, Sales, Management, etc.

Culinary Pathway

Logan County High School

PATHWAY DESCRIPTION: The Culinary & Food Service pathway addresses a skill set necessary for success in the culinary industry. The courses in this pathway will help students develop skills in early career ladder positions and promote continuing education at the postsecondary level preparing for careers associated with restaurants, institutional food service, hospitality and catering, as well as food and beverage operations.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Foods and Nutrition

Culinary I (prereq: Foods and Nutrition)(CUL 100-dual credit)

Culinary II (prereq: Culinary I) (CUL 125-dual credit)

*Family and Consumer Science Coop (prereq: 3 culinary pathway credits)

*Digital Literacy (CIT 105-dual credit), Financial Literacy (FIN 161-dual credit), or Business Mgt

(Suggestions for Employment: Restaurants, Health Department, Catering Business, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|-----------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Foods and Nutrition | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | Culinary I-(CUL 100) | Health/PE | CUL 100 Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Culinary II-(CUL 125) | | CUL 125 PSY 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | FCS Coop | | HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Baking and Pastry Arts, Executive Chef, Catering, Personal Chef, Foods Production Manager, Food Services, etc)

Early Childhood Pathway

Logan County High School

PATHWAY DESCRIPTION: The Early Childhood Education pathway will address a skill set necessary for success in early childhood education so that individuals can teach students ranging in age from infancy through eight years (grade three), depending on the school system or state regulations. This pathway is targeted for individuals preparing for careers related to early childhood education, such as those associated with child care, teaching, community-based children's programs, social services or counseling for children, and after-school programs.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Early Lifespan Development: 1 credit

Child Development Services I (prerequisite: Early Lifespan Development): 2 credits

*Child Development Services II (prerequisite: CDS I): 2 cr

*Family and Consumer Science Coop (prerequisite: 3 early childhood pathway credits): 1 credit

(Suggestions for Employment: Elementary Schools, Child Care Centers, etc)

*One or the other is required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|-------------------------------|------------------------|--|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Early Lifespan Development | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Child Development Services I | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Child Development Services II | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | FCS Coop | | HIST 101/102 Math 116 EDU 250/ED 220 ED 300 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Child Care Center Directors, Elementary Teachers, Preschool Teachers, Nanny, Psychologist, Pediatrician, Social Worker, Special Education Teacher, etc

Fundamentals of Teaching Pathway

Logan County High School

PATHWAY DESCRIPTION: The Fundamentals of Teaching pathway will facilitate employment in early career ladder positions and promote continuing education at the postsecondary level preparing for careers associated with education and training in public and private school programs, elementary, middle, and secondary schools, after-school programs; higher education, nonprofit, and corporate settings.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Early Lifespan Development

Middle to Late Lifespan Development

WKU EDU 250: Intro to Education OR

Campbellsville ED 220: Intro to Teaching

Campbellsville ED 300: Human Dev and Learning Theory

Internship: Fundamentals of Teaching

(Suggestions for Employment: Schools)

EDU 250, ED 220, and ED 300 require observation hours in an actual classroom

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Early Lifespan Development | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | Middle to Late Lifespan Dev | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | EDU 250 (WKU) or ED 220 (Campbellsville) | | EDU 250/ED 220 PSY 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | ED 300 Internship: Fund of Teaching | | ED 300 HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Child Care Center Directors, Elementary Teachers, Middle/High School Teachers, Preschool Teachers, Special Education Teacher, etc

Army JROTC Pathway

Logan County High School

PATHWAY DESCRIPTION: This pathway focuses on "Making Young People Better Citizens". JROTC introduces students to the theory and practice of Leadership techniques they will need to be successful after high school in any job. On top of learning valuable leadership techniques and strategies, students will dive into Military History, Financial Education, Health, PE, realistic First Aid Training and Certification.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher- level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

JROTC (with health and PE credit) Level I

JROTC Level II (prerequisite: Level I)

JROTC Level III (prerequisite: Level II)

*JROTC Level IV (prerequisite: Level III)

JROTC COOP (prerequisite: Level III)

(Suggestions for Employment: No work based experience while in high school)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|-----------------------------------|------------------------|--|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | JROTC I with health and PE credit | Humanities | CIT 105 (Digital Literacy), CAD 100 (Intro to CAD), Industrial Maintenance dual credit courses |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | JROTC II | | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | JROTC III | | PSY 100 MUS 100 COMM 145 BIO 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | JROTC IV JROTC COOP | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Aviation, Engineering, Police Force, Intelligence, Communication, Transportation, Mechanical, Finance, Logistics, Medical, Veterinary, Criminal law, Military, Personnel Administration.

Architectural Technology Pathway

Logan County CTC

PATHWAY DESCRIPTION: Architectural Technology utilizes mathematical and scientific principles to draw building layouts including structural, HVAC, lighting, plumbing and electrical systems while addressing issues that include functionality, safety and economic factors. Architectural Drafters need to be able to draw designs manually as well as through computer-aided drafting (CAD). Additional concerns are site considerations and building codes.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Introduction to CAD-dual credit

Introduction to Architecture

Architectural Design

*Intermediate CAD

*CAD Coop

(Suggestions for Employment: Factories, Contractors, Maintenance, DDL, etc

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|------------------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Intro to CAD-dual credit | Humanities | CAD 100 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Intro to Architecture | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Architectural Designer | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Intermediate CAD or CAD Coop | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Architectural Engineer, Architectural Drafter, Architectural CAD, etc

Mechanical Designer Pathway

Logan County CTC

PATHWAY DESCRIPTION: Mechanical Designers have a working knowledge of mechanical parts as well as computer-aided design (CAD) software, such as AutoCAD and SolidWorks. Mechanical designers work with project managers, engineers, and clients to understand the needs and requirements for a new product or mechanical system. For example, Designers working on a project to create an automobile engine may consult engineers regarding which structural materials to use or clients regarding engine efficiency requirements. Once materials and specifications have been determined, Designers begin using CAD software to plan and develop models.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Introduction to CAD-dual credit

Parametric Modeling

Engineering Graphics

*Intermediate CAD

*CAD Coop

(Suggestions for Employment: Factories, Contractors, Maintenance, DDL, etc

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|------------------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Intro to CAD-dual credit | Humanities | CAD 100 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Parametric Modeling | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Engineering Graphics | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Intermediate CAD or CAD Coop | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Electrical Technician, Electrical Supervisor, Contractor, Electrical Engineer, Civil Engineer, etc

Construction Pathway

Logan County CTC

PATHWAY DESCRIPTION: The Commercial Skilled Trades TRACK is designed as a pre-apprenticeship pathway for students to have the opportunity to enter a Registered Apprenticeship training program upon graduation. This Skilled Trades TRACK does not require an employer partner. Students must successfully complete the four-course sequence, eight safety modules and an end of program assessment. Upon conclusion, the instructor will fill out a completion form and submit to OCTE. After being processed, the student will receive a pre-apprenticeship industry certification issued by the Kentucky Labor Cabinet. This certification will be recognized by participating partners for an interview and possible credit upon placement. Credit is at the discretion of the training organization.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Introduction to Construction

Site Layout

Ceiling and Roofing

*Floor and Wall Framing

*Construction Coop

(Suggestions for Employment: Contractors, Lowes, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Introduction to Construction | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Site Layout | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Ceiling and Roofing | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Floor and Wall Framing or Construction Coop | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Carpenter, Construction, Tradesperson, Construction Manager, Cost Estimator, etc

Electrical Technology Pathway

Logan County CTC

PATHWAY DESCRIPTION: Electrical Technicians apply electrical theory and related knowledge to diagnose and modify developmental or operational electrical machinery and electrical control equipment and circuitry in industrial or commercial plants and laboratories: Assembles and tests experimental motor-control devices, switch panels, transformers, generator windings, solenoids, and other electrical equipment and components according to engineering data and knowledge of electrical principles.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Electrical Construction I-option for dual credit

Circuits I-option for dual credit

Circuits II-option for dual credit

*Electrical Construction II

*Electricity Coop

(Suggestions for Employment: Contractors, Maintenance, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Electrical Construction I- dual credit | Health/PE | ELE 154 Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Circuits I (ELT 110) and Circuit II (ELT 114)- dual credit | | PSY 100 MUS 100 COMM 145 ELT 110/114 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Electrical Const II or Electricity COOP | | HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Electrical Technician, Electrical Supervisor, Contractor, Electrical Engineer, etc

Industrial Maintenance-Electricity Pathway

Logan County CTC

PATHWAY DESCRIPTION: Electrical Technicians apply electrical theory and related knowledge to diagnose and modify developmental or operational electrical machinery and electrical control equipment and circuitry in industrial or commercial plants and laboratories: Assembles and tests experimental motor-control devices, switch panels, transformers, generator windings, solenoids, and other electrical equipment and components according to engineering data and knowledge of electrical principles.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Industrial Maintenance Electrical Principles

Industrial Maintenance Motor Control

Industrial Maintenance PLC

*Robotics

Electricity Coop

(Suggestions for Employment: Factories, Contractors, Maintenance, etc

*Must have Industrial Maintenance Electrical Principles, Motor Control, and PLC before taking this course.

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Indust Maint Electrical Principles | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Indust Maint Motor Control and Indust Maint PLC | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Robotics or Electricity COOP | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Electrical Technician, Electrical Supervisor, Contractor, Electrical Engineer, etc

Pre-Nursing Pathway

Logan County CTC—Health Science Academy and Associates in Applied Science in Nursing at Southcentral Kentucky Tech College

PATHWAY DESCRIPTION: This pathway prepares individuals for admission to a professional pathway in Nursing.

Required Core Courses

| |
|---|
| English 9, 10, 11 (or English 101), and 12 (or English 161) |
| Algebra I, Geometry, Algebra II, and additional higher-level math course |
| Biology, Chemistry (Conceptual Science I), and Integrated Science |
| Integrated Social Studies (or AP Human Geography), World Civilization, and US History |
| Humanities |
| Health and PE |

Required Elective Courses

| |
|--|
| Principles of Health Science |
| Emergency Procedures and Medical Terminology |
| Medical Math |
| Body Structures and Functions or Anatomy |
| Medicaid Nurse Aide (NAA 100)—Certification Course |

***Coop-Nursing (Work-base Experience)**

(Suggestions for Employment: Doctor's Offices, Pharmacies, Hospital, Veterinary Office, Physical Therapy Office, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement Sometime in HS | Accelerated Opportunities | Industry Certification and Work-based Exp |
|------------------------|----------------------------------|-------------------------------------|--|--|--|--|---|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies (Global Studies) or AP Human Geography | Biology | Principles of Health Science | Humanities | CIT 105 | Job Shadowing |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Emergency Proc / Medical Terminology (AHS 115) | Health/PE | AHS 115 | Job Shadowing |
| 11 th grade | English 11 or dual credit course | Algebra II or higher level math | US History | Integrated Science (Physics/Earth Space) | Body Structures or Anatomy or Another Elective | | General Psy English 101 MUS 100 or Art 100 | Job Shadowing |
| 12 th grade | English 12 or dual credit course | Higher level math | Not required | Not required | Medicaid Nurse Aide (NAA 100) and Work-base Experience | | Math 116 Eng 161 NAA 100 BIO 221 | State Certified Nurse Asst and Work-based Exp |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Possible Dual Credits Options for a bachelor's degree in this field: Spanish or Chinese, Psychology, Intro to Music or Art, Speech and Communication, College Algebra, Western Civilization, English I and II, General Biology with Lab, Developmental Psychology, NAA 100, CIT 105 (for KCTCS), and other online dual credit opportunities.

Phlebotomy Technician Pathway

Logan County CTC-Health Science Academy

PATHWAY DESCRIPTION: This pathway prepares individuals, under the supervision of physicians and other health care 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.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher- level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Principles of Health Science

Emergency Procedures and Medical Terminology-dual credit (AHS 115)

Medical Math

*Body Structures and Functions or Anatomy

* Medical Laboratory Aide (Phlebotomist)

(Suggestions for Employment: Doctor's Offices, Pharmacies, Hospital, Veterinary Office, Physical Therapy Office, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities | Industry Certification and Work-Based Exp |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Principles of Health Science | Humanities | | Job Shadowing |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Cons Sci I) | Emergency Proc / Medical Terminology (AHS 115) | Health/PE | AHS 115 Span 101/102 FIN 161 | Job Shadowing |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Body Structures or Anatomy | | PSY 100 MUS 100 COMM 145 Bio 112/113 | Job Shadowing |
| 12 th grade | English 12 or Eng 161 (dual credit) | Higher level math | Not required | Not required | Medical Laboratory Aide | | HIST 101/102 Math 116 | NCPT certification Work-Based Experience |

Post-Secondary Options: Workforce, Military, Certificates, or Diploma

Potential jobs in this pathway: Medical Lab Tech, Phlebotomist, etc

Machinist Operator Pathway

Logan County CTC

PATHWAY DESCRIPTION: Machine operators are responsible for producing precision machined parts. They measure parts with precision tools in order to make sure certain parts meet pre-determined quality and cosmetic standards. When parts have passed inspection, the parts go on to the next phase of production. Machine operators are expected to meet production quotas. The level of documentation required varies, depending on the degree of precision needed for the finished product. Machine operators also need to keep track of the number of units that are scrapped due to various errors.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Machine Tool A

Machine Tool B

Applied Machining I

*Applied Machining II

*Machine Tool Coop

(Suggestions for Employment: Factory, Tool and Die, Maintenance Technician, etc

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|----------------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Machine Tool A and B | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Applied Machining I and II | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Machine Tool COOP | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Machinist Technician, Machinist, CNC Machine Operator, Quality Control Manager, Mechanical Engineer, Engineer Technician, Industrial Engineer, etc

CNC Operator Pathway

Logan County CTC

PATHWAY DESCRIPTION: Machine operators are responsible for producing precision machined parts. They measure parts with precision tools in order to make sure certain parts meet pre-determined quality and cosmetic standards. When parts have passed inspection, the parts go on to the next phase of production. Machine operators are expected to meet production quotas. The level of documentation required varies, depending on the degree of precision needed for the finished product. Machine operators also need to keep track of the number of units that are scrapped due to various errors.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Machine Tool A

Machine Tool B

Manual Programming

CNC/CAM/CAD

Machine Tool Coop

(Suggestions for Employment: Factory, Tool and Die, Maintenance Technician, etc

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|-----------------------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Machine Tool A and B | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Manual Programming CNC/CAM/CAD | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Machine Tool COOP | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Machinist Technician, Machinist, CNC Machine Operator, Quality Control Manager, Mechanical Engineer, Engineer Technician, Industrial Engineer, etc

Network Administrative Pathway

Logan County CTC

PATHWAY DESCRIPTION: The network administration pathway will help students learn new administration support skills or upgrade existing computer information systems skills. Students will be able to properly install networking software on an appropriately sized computer; configure the software for a simple server environment and connect it correctly to a physical network; manage a simple networking environment; effectively troubleshoot problems; adding new users and attending to security concerns; and work within the ethical/professional parameters in the field of network administration.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

*Digital Literacy or Computer Literacy (dual credit)

*Hardware/Software (dual credit)

*Intro to Networking

*Computational Thinking or Internet Technologies (dual credit)

Information Technology Coop

(Suggestions for Employment: Office Receptionist, IT Department, etc

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|---|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Digital Literacy or Computer Literacy-(dual credit) | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Hardware/Software (dual credit) | Health/PE | CIT 111 Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Internet Technologies (dual credit) or Computational Thinking | | CIT 150 PSY 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Intro to Networking | | HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Network Server Administrator, Support Team Member, Quality Assurance System Analyst, Sales Representative, Technical Support Representative, Electronics Engineer, Hardware Engineer, Network administrative, etc

Information Support and Services Pathway

Logan County CTC

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 & software components, algorithms, databases, and telecommunications.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

*Digital Literacy or Computer Literacy (dual credit)

*Computer Hardware and Software (dual credit)

*Help Desk Operations (dual credit)

*Internet Technology (dual credit)

Information Technology Coop

(Suggestions for Employment: Office Receptionist, IT Departments, etc

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Digital Literacy or Computer Literacy-dual credit | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Computer Hardware/Software (dual cr) | Health/PE | CIT 111 Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Help Desk (dual cr) Internet Technologies (dual cr) | | CIT 150/232 PSY 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Information Technology COOP | | HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Computer Trainer, Customer Service Representative, Data Entry Clerk, Quality Control, Computer Support, Technical Writer, etc

Administrative Support Pathway

Logan County CTC

PATHWAY DESCRIPTION: This pathway is designed to provide students an advanced level experience that will propel them in the 21st century business world as they serve in positions such as college interns, administrative assistants, graduate assistants, assistant managers, etc. Instruction includes areas of fundamental business procedures, human resource management, time management software, workstation management, travel planning, financial reporting, payroll, mail procedures, effective communication skills, and ethical decision-making skills.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Digital Literacy or Computer Literacy (dual credit)

Accounting and Finance Foundations or Financial Literacy (could be offered as dual credit)

Business and Marketing Essentials

Business Communications or Intro to Management

Business Education Coop

(Suggestions for Employment: Office Receptionist, manager, Human Resource Officer, Payroll Clerk, or any other business field)

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | Digital Literacy or Computer Literacy-dual credit | Humanities | CIT 105 |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Accounting and Finance or Financial Literacy (dual cr) | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Business/Marketing Essentials | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Business Ed COOP or elective | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, 2-year Associate's Degree, and 4-year Bachelor's Degree

Potential jobs in this pathway: Administrative Assistant, Event Planner, Health Care Administrator, Hotel Manager, Human Resources Specialist, Insurance Claim Adjuster, Management Consultant, Office Manager, Paralegal, etc

Welding Pathway

Logan County CTC

PATHWAY DESCRIPTION: An Entry Level Welder demonstrates the ability to assist lead welders in the fabrication of steel and metal structures. Must be adept at performing basic welding functions and calculating dimensions as well as operating power equipment, grinders and other related tools. Must be proficient in reading and interpreting basic blueprints and following work procedure specifications (WPS).

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

Basic Welding and Blueprint Reading-dual credit

Cutting Processes

Shielded Metal Arc Welding (STICK) or Gas Metal Arc Welding (MIG)-dual credit

Gas Tungsten Arc Welding (TIG)

SMAW Groove Lab (Welding Certification Class)

*Welding Coop

(Suggestions for Employment: H and H Sheetmetal, McIntosh Welding, PTL, Farms, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|--|------------------------|--|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Basic Welding and Blueprint (dual cr) | Health/PE | BRX 120 Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Cutting Processes, SMAW or GMAC (dual cr) | | WLD 120 WLD 140 PSY 100 MUS 100 COMM 145 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | Gas Tungsten or Groove Lab Welding Coop | | HIST 101/102 Math 116 Bio 112/113 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Combination Welder, Pipe Welder, Inspector (CWI), Welding Engineer, Structural Engineer, Mechanical Engineer, etc

Automotive Technology Pathway

Logan County CTC

PATHWAY DESCRIPTION: This pathway prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

Required Core Courses

English 9, 10, 11 (or English 101), and 12 (or English 161)

Algebra I, Geometry, Algebra II, and additional higher-level math course

Biology, Chemistry (Conceptual Science I), and Integrated Science

Integrated Social Studies (or AP Human Geography), World Civilization, and US History

Humanities

Health and PE

Required Elective Courses

*Automotive A

*Automotive B

*Automotive C

*Automotive D

(*Courses can be taken in any order)

Automotive Coop-Student must have all four auto classes

(Suggestions for Employment: Auto Dealerships, Auto Detailer, Dispatcher, etc)

*Required to be a completer

Sample 4-Year Plan

| Grade Level | English | Math | Social Studies | Science | Career Pathway Course | Additional Requirement | Dual Credit Opportunities |
|------------------------|---|-------------------------------------|---|------------------------|------------------------------|------------------------|---|
| 9 th grade | English 9 | Algebra I, Geometry, or Algebra II | Integrated Social Studies or AP Human Geography | Biology | | Humanities | |
| 10 th grade | English 10 | Geometry, Algebra II or Precalculus | World Civilization | Chemistry (Conc Sci I) | Automotive A Automotive B | Health/PE | Spanish 101/102 FIN 161 |
| 11 th grade | English 11 or English 101 (dual credit) | Algebra II or higher level math | US History | Integrated Science | Automotive C Automotive D | | PSY 100 MUS 100 COMM 145 Bio 112/113 |
| 12 th grade | English 12 or English 161 (dual credit) | Higher level math | Not required | Not required | COOP | | HIST 101/102 Math 116 |

Post-Secondary Options: Workforce, Military, Certificates, and 2-year Associate's Degree

Potential jobs in this pathway: Automotive Service Technician, Auto Detailer, Customer Service Representative, Dispatcher, Automotive Salesperson, Service Manager, etc