

COLLEGE AND CAREER PATHWAYS

This information pertains to both the General Diploma and Technical Honors Diploma. These are the State College and Career Pathways, but schools do have flexibility in substituting other College and Career Pathway Courses in the curriculum area to meet the College and Career Pathway requirement. This information is an outline of possible courses, Dual Credit opportunities, and Industry-Based Certifications.

College and Career Pathway information in BOLD print is directly available through course offerings at GCHS. Other listed College and Career Pathway information may be available through various vocational school programs.

Please Note:

Personal Financial Responsibility and Preparing for College & Careers are foundational Career & Technical Education Courses recommended for every student in every College and Career Pathway.

(1.) AGRICULTURE

Foundation Course For All Students In The Agriculture Pathways:

Introduction to Agriculture Food and Natural Resources

Pathway: Agribusiness

Introduction to Agriculture Food and Natural Resources

Agribusiness Management

Agriculture Power Structure and Technology

Pathway: Horticulture & Landscape Management

Horticultural Science

Landscape Management I & II

Plant and Soil Science

Pathway: Life Sciences

Introduction to Agriculture Food and Natural Resources

Concentration: Animal Science

Animal Science

Advanced Life Science: Animals

Concentration: Food Science

Food Science

Advanced Life Science: Foods

Concentration: Natural Resources

Natural Resources

Sustainable Energy Alternatives

Concentration: Plants & Soils

Plant and Soil Science

Advanced Life Science: Plants and Soils

Dual Credit Opportunities:

1. Natural Resources
2. Agribusiness Management
3. Landscape Management I
4. Horticultural Science
5. Animal Science
6. Agriculture Power, Structure, & Technology

Possible Industry-Based Certification:

None Available

(2.) ARCHITECTURE & CONSTRUCTION

Pathway: Construction Trades

- Introduction to Construction
 - Concentration: Construction
 - Construction Technology I
 - Construction Technology II
 - Concentration: Electrical
 - Construction Technology-Electrical I
 - Construction Technology-Electrical II
 - Concentration: HVAC
 - Construction Technology-HVAC I
 - Construction Technology-HVAC II

Pathway: Drafting & Design

- Computers in Design and Production
 - Concentration: Architectural
 - Introduction to Housing and Interior Design
 - Architectural Drafting and Design I
 - Architectural Drafting and Design II
 - Concentration: Mechanical
 - Mechanical Drafting and Design I
 - Mechanical Drafting and Design II

Dual Credit Opportunities:

1. PLTW – IED
2. PLTW – CIM
3. PLTW – POE
4. Computers in Design and Production

Possible Industry-Based Certifications:

1. Interior Design Fundamentals (Pre-PAC)
(Intro to Construction I & II; PLTW – IED;
CADD; Intro to Housing & Interior Design)
 2. AutoCAD Certified User
(PLTW – IED; CADD; other Tech Ed Courses)
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(3.) ARTS, AV TECHNOLOGY, AND COMMUNICATIONS

Pathway: Web & Digital Communications

- Introduction to Communications
 - Concentration: Interactive Media
 - Design Fundamentals
 - Computer Illustration & Graphics
 - Interactive Media
 - Web Design

Concentration: Radio TV
Radio Television I
Radio Television II

Pathway: Visual Arts

Introduction to Design Processes
Concentration: Visual Communications
Design Fundamentals
Computer Illustration & Graphics
Graphic Design & Layout
Web Design
Concentration: Commercial Photography
Design Fundamentals
Computer Illustration & Graphics
Commercial Photography
Graphic Design & Layout
Concentration: Fashion, Textiles, & Design
Introduction to Design Processes
Introduction to Fashion & Textiles
Fashion & Textile Career I
Fashion & Textile Career II

Dual Credit Opportunities:

1. Digital Applications & Responsibility II
2. Computer Illustration & Graphics

Possible Industry-Based Certification:

1. Microsoft Office Specialist
 - a. Word (DAR I)
 - b. Excel (DAR II)
 2. Fashion, Textiles, & Apparel (Pre-PAC)
(Intro to Fashion & Textiles I & II)
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(4.) BUSINESS AND MARKETING

Pathway: Business Administration

Foundation Courses For All Students In This Pathway:

Introduction to Business
Digital Applications & Responsibility I

Concentration: Accounting & Finance
Accounting
Business Law and Ethics
Financial Services

Concentration: Entrepreneurship & Management
Business Law and Ethics
Principles of Business Management OR Principles of Marketing
Business Management Focus
Advanced Business Management
Entrepreneurship Focus
Entrepreneurship and New Ventures

Concentration: Marketing Management
 Principles of Marketing OR Principles of Business Management
 Strategic Marketing
 Marketing in Hospitality & Tourism
 Sports & Entertainment Marketing Focus
 Sports and Entertainment Marketing
 Marketing Focus
 Fashion & Textiles Electives (such as Intro to Fashion & Textiles)
 Principles of Marketing
 Fashion Merchandising

Dual Credit Opportunities:

1. Digital Applications & Responsibility II
2. Computer Illustration & Graphics
3. Business Law & Ethics
4. Principles of Business Management
5. Entrepreneurship & New Ventures
6. Principles of Marketing

Possible Industry-Based Certification:

1. Microsoft Office Specialist
 - a. Word (DAR I)
 - b. Excel (DAR II)

(5.) EDUCATION AND TRAINING

Pathway: Early Childhood Education

Foundation Courses for All Students In This Pathway:

Child Development
 Advanced Child Development
 Interpersonal Relationships

Concentration: Early Childhood
 Early Childhood Education I
 Early Childhood Education II
 Concentration: Education Careers
 Adult Roles Responsibilities
 Education Professions I
 Education Professions II

Dual Credit Opportunities:

1. Education Professions I
2. Digital Applications & Responsibility II

Possible Industry-Based Certification:

1. Education Fundamentals Certification
 (Child Development; Advanced Child Development; Education Professions I)
2. Early Childhood Certification
 (Child Development; Advanced Child Development; Early Childhood Education I)
3. Broad Field Family and Consumer Sciences Certification (Pre-PAC)
 (Child Development; Nutrition; PCC; other Pathway Courses [Personal Financial Responsibility])

(6.) HEALTH SCIENCE

Pathway: Biotechnology

PLTW – Principles of Biomedical Sciences
PLTW – Human Body Systems
PLTW – Medical Interventions
PLTW – Biomedical Innovations

Pathway: Dental

Dental Careers I
Dental Careers II
Interpersonal Relationships
Nutrition and Wellness

Pathway: Health Care Specialties

Concentration: Health Care Specialties
Anatomy and Physiology
Health Science Education I
Health Science Education II
Medical Terminology

Pathway: Nursing

Anatomy and Physiology
Health Science Education I
Health Science Education II
Human Development and Wellness
Medical Terminology

Dual Credit Opportunities:

1. Anatomy & Physiology
2. Digital Applications & Responsibilities II

Possible Industry-Based Certification:

None Available

(7.) HOSPITALITY & HUMAN SERVICES

Foundation Course for All Hospitality and Human Services Students:

Introduction to Business

Pathway: Cosmetology

Cosmetology I
Cosmetology II

Foundation Courses For All Students in Culinary and Hospitality Pathways:

Nutrition and Wellness
Advanced Nutrition and Wellness
Introduction to Culinary Arts and Hospitality
Interpersonal Relationships

Pathway: Culinary Arts

Culinary Arts and Hospitality Management
Advanced Culinary Arts

Pathway: Hospitality Management

Culinary Arts and Hospitality Management
Advanced Hospitality Management

Pathway: Human and Social Services

Human and Social Services I
Human and Social Services II
Human Development and Wellness

Dual Credit Opportunities:

None Available

Possible Industry-Based Certification:

1. Nutrition Food & Wellness (Pre-PAC)
(Nutrition & Wellness; Advanced Nutrition & Wellness; Preparing for College & Careers; Health & Wellness)
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(8.) INFORMATION & TECHNOLOGY

Pathway: Programming

Digital Applications & Responsibility I & II
Computer Programming I
Computer Programming II

Pathway: PC Networking & Support

Digital Applications & Responsibilities I & II
Computer Tech Support
 Concentration: Networking
 Infrastructure of the Internet
 Concentration: PC Support
 Networking Fundamentals

Dual Credit Opportunities:

1. Digital Applications & Responsibilities II
2. Computer Illustration & Graphics
3. Computer Tech Support I & II

Possible Industry-Based Certification:

1. Microsoft Office Specialist
 - a. Word (DAR I)
 - b. Excel (DAR II)
 2. A+ Certification
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(9.) MANUFACTURING

Pathway: Advanced Manufacturing

Intro to Manufacturing I & II OR Intro Adv. Manufacturing & Logistics I & II
Advanced Manufacturing I
Advanced Manufacturing II

Pathway: Electronics

Intro to Manufacturing I & II OR Intro Adv. Manufacturing & Logistics I & II
Computers in Design and Production
Electronics and Computer Technology I
Electronics and Computer Technology II

Pathway: Machine Technology

Introduction to Manufacturing I & II OR Introduction to Advanced Manufacturing and Logistics I & II
Computers in Design and Production
Precision Machining I
Precision Machining II

Pathway: Welding

Introduction to Manufacturing I & II OR Introduction to Advanced Manufacturing and Logistics I & II
Computer in Design and Production
Ivy Tech – WELD 100 Welding Processes
Ivy Tech – WELD 108 Shielded Metal Arc Welding I and WELD 206 Shielded Metal Arc Welding II
Welding Technology I
Welding Technology II

Pathway: Logistics & Supply Chain Management

Introduction to Advanced Manufacturing and Logistics I & II
Computers in Design and Production
Supply Chain Management and Logistics
Warehouse Operations Materials Handling

Dual Credit Opportunities:

1. PLTW – CIM
2. Computers in Design and Production
3. Intro to Advanced Manufacturing & Logistics I & II
4. Advanced Manufacturing I

Possible Industry-Based Certification:

1. AutoCAD Certified User (PLTW – IED; CADD)
 2. Welding Certifications
 3. PLTW = 3 engineering courses (End of Course Assessment Bundle)
 4. MSSC = Safety
 5. MSSC = Production
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(10.) PUBLIC SAFETY

Pathway: Criminal Justice

Criminal Justice I
Criminal Justice II
Interpersonal Relationships

Pathway: EMT/Paramedic

Emergency Medical Services
Health Science Education I
Human Development and Wellness

Pathway: Fire and Rescue

Fire and Rescue I
Fire and Rescue II
Interpersonal Relationships

(11.) STEM – SCIENCE, TECHNOLOGY, ENGINEERING, & MATH

Pathway: Engineering

Introduction to Engineering Design
Principles of Engineering

At Least One of the Following:

- Aerospace Engineering OR Aerospace Engineering (non-PLTW)
- Biotechnical Engineering OR Biotechnical Engineering (non-PLTW)
- Civil Engineering & Architecture OR Civil Engineering & Architecture (non-PLTW)
- Computer Integrated Manufacturing OR Computer Integrated Manufacturing (non-PLTW)
- Digital Electronics OR Digital Electronics (non-PLTW)
- Capstone (Recommended)
Engineering Design and Development

Pathway: Engineering Technology

- Introduction to Engineering Design PLTW
- Principles of Engineering PLTW
- Purdue Polytechnic Columbus: TECH 120 Design Thinking in Technology
- Purdue Polytechnic Columbus: TLI 112 Foundations of Organizational Leadership

Additional Pathways to be developed

Dual Credit Opportunities:

1. PLTW – IED
2. PLTW – CIM
3. PLTW – POE
4. TECH 120
5. TLI 112

Possible Industry-Based Certification:

1. AutoCAD Certified User
(PLTW – IED; CADD)
2. PLTW = 3 engineering courses
(End of Course Assessment Bundle)

(12.) TRANSPORTATION

Pathway: Automotive Collision Repair

- Introduction to Transportation
- Automotive Collision Repair Technology I
- Automotive Collision Repair Technology II

Pathway: Automotive Technology

- Introduction to Transportation
- Automotive Services Technology I
- Automotive Services Technology II

Pathway: Aviation

- Introduction to Transportation
- Introduction to Engineering Design
- Aerospace Engineering
- Aviation Flight
- Aviation Maintenance
- Aviation Operations

Pathway: Diesel Service Technology

- Introduction to Transportation
- Diesel Services Technology I
- Diesel Service Technology II