Manufacturing & Logistics

PATHWAY: Robotics

Are you interested in designing, building, and testing robots?
Are you interested in the automotive, aerospace, metals, nuclear, mining, textile, and computer industries?

COURSES IN YELLOW are pathway concentrator courses and must be finished with a **C- average or above** to meet Indiana's 3rd requirement to graduate.
COMPLETE ALL COURSES below with a B- or above to graduate with **Academy recognition**.

COURSE NAME	GRADES AVAILABLE	LENGTH	DUAL (COLLEGE) CREDITS POSSIBLE	FULFILLS CORE 40 CREDITS AS…
PLTW Introduction to Engineering Design	9, 10, 11, 12	Year	3	
PREREQUISITE FOR CONCENTRATOR COURSES Robotics Design and Innovation	9, 10, 11, 12	Year		
INDUSTRIAL AUTOMATION AND ROBOTICS I *Only offered odd graduation years* (REQUIRED CONCENTRATOR COURSE)	**10, 11, 12**	**YEAR**		
INDUSTRIAL AUTOMATION AND ROBOTICS II *Only offered even graduation years* (REQUIRED CONCENTRATOR COURSE)	**11, 12**	**YEAR**		**QUANTITATIVE REASONING**

Must earn a specified certification or dual credit to graduate
with Academy recognition. Apply your senior year.

Check out the list below for more courses related to this pathway - see the Course of Study Guide for details.

- Digital Electronics
- Graphic Imaging Technology
- PLTW Principles of Engineering

- **Robotics Club**
- Technology Sandbox (Intro to Computer Science)
- Work-Based Learning Capstone

Possible Careers Requiring 0-4 Years of Additional Training or Education	
• Machine Operator • Part Specialist	• Quality Control Specialist • Robotics Technician

Possible Careers Requiring 4+ Years of Additional Training or Education	
• Computer Programmer • Controls Engineer	• Mechanical Engineer • Robotics Engineer

Local Industry Partners	
Ivy Tech Community College	Zimmer-Biomet

THREE GRADUATION REQUIREMENTS

	THREE REQUIREMENTS	OPTIONS (Pick at least one in EACH box)
1	**HIGH SCHOOL DIPLOMA** Must complete _at least one_ item Check all that apply	☐ Core 40 ☐ Core 40 with Academic Honors ☐ Core 40 with Technical Honors
2	**EMPLOYABILITY SKILLS** Must complete _at least one_ item Check all that apply	☐ Project-Based Learning Experience ☐ Service-Based Learning Experience ☐ Work-Based Learning Experience

3	**POSTSECONDARY-READY COMPETENCIES**
	
	Must complete _at least one_ item
	Check all that apply
		☐ Complete:
		    Concentrator courses and their prerequisite courses (in YELLOW) from a pathway
		    Maintain a C- average minimum in the CONCENTRATOR COURSES for that pathway
		    Chosen pathway: _____
		☐ Core 40 with Technical Honors diploma
		☐ Core 40 with Academic Honors diploma
		☐ AP/Dual Credit: Must earn a C- average or higher in at least three courses
		☐ ACT with college-ready benchmarks
		☐ SAT with college-ready benchmarks
		☐ ASVAB with minimum AFQT score to qualify for placement into one of the branches of the US military
		☐ State- and Industry-recognized credential or certification
		☐ State-, Federal-, or Industry-recognized apprenticeship

_____'s Four-Year Plan

GRAD	English	Math Fill blanks with electives	Science Fill blanks with electives	Social Studies Fill blanks with electives	Physical Education/ Health or 3 FACS Fill blanks with electives	Elective Courses	Pathway and Academy Courses Fill blanks with electives	Summer School Credits
7/8	Any middle school credits							
9	English 9	Algebra I	Biology I	World History Civ. A or B (9-10th grade)	Preparing for College & Careers			Session A before 9th grade
9	(continued)	(continued)	(continued)	World History Civ. A or B (9-10th grade)	PE credit			Session B before 9th grade
10	English 10	Geometry	Chemistry I, or ICP, or Physics I		PE credit or waiver			Session A before 10th grade
10	(continued)	(continued)	(continued)		Health or 2 other qualifying FACS credits			Session B before 10th grade
11	English 11	Algebra II	Qualifying Core 40 science of your choice	U.S. History				Session A before 11th grade
11	(continued)	(continued)	(continued)	(continued)				Session B before 11th grade
12	English 12	Quantitative reasoning or math recommended		Government				Session A before 12th grade
12	(continued)			Economics (fulfills requirement for quantitative reasoning)				Session B before 12th grade