



ENGINEERING & INDUSTRIAL TECHNOLOGY PATHWAY



Do you like to solve problems in a logical way? Are you curious about the way things work? Do you like working with technology?

If so, this pathway may be for you!

Cultivating students' awareness, understanding and application in career areas that include:

ARCHITECTURE
CONSTRUCTION
ENGINEERING
MANUFACTURING TRANSPORTATION
DISTRIBUTION & LOGISTICS

Sample Employers from this Pathway:

Advanced Concrete Systems Inc, Apex Homes of PA LLC, Heister House Millworks, GAF, Larson Design Group, LIVIC Civil, Mid-Penn Engineering Corp., PennDOT, Playworld Systems Inc., PMF Industries, Inc., PPL Electric Utilities, Ritz-Craft Homes, SEKISUI KYDEX, Thermal Product Solutions (TPS), Zartman Construction Inc., etc.

Central Pennsylvania's Engineering & Industrial Technology Occupations

Prepared by **Advance Central PA**
Source: Lightcast Q1 2023 Data Set

Carpenters & Electricians

High School Diploma+

\$34,644- \$38,221 -
\$51,665 \$57,019

Entry Level Wages Average Wages

Welders, Cutters, Solderers & Brazers

Moderate-Term On-the-Job Training

\$37,397 \$44,220

Entry Level Wages Average Wages

Supervisors - Mechanics, Installers & Repairers

Related Work Experience

\$50,591 \$68,406

Entry Level Wages Average Wages

Automotive Service Technicians & Mechanics

Post-secondary Training

\$29,882 \$41,772

Entry Level Wages Average Wages

Civil Engineers

Bachelor's Degree

\$63,923 \$82,510

Entry Level Wages Average Wages

2022

**CAREER READY
Central PA**

CAREER PLANNING

KNOW YOURSELF

Identify your values, strengths, and skills and how they relate to your career goals.

TRY OUT CAREERS

Interview a professional, participate in a job shadow or internship, and network.

WORK YOUR PLAN

Apply to the job, post-secondary training or education option that aligns with your career interests.

RESEARCH CAREERS

Know the required education or training; the job outlook; and the potential earning and advancement opportunities.

RESEARCH REQUIREMENTS

Look at all the options (on-the-job training, apprenticeship, or programs and costs) aligned with your career interests.

What courses are offered in the Engineering & Industrial Technology Pathway? Choices vary at each school but may include the below list. Check with your counselor or advisor to learn more.

Advanced Math and Science
Computer Assisted Drafting
Introduction to Coding

Introduction to Engineering
Mechanical Drafting

PA Dept. of Education Approved Programs:

Advanced Precision Machining
Advanced Wood Products Mfg
Auto Technology
Carpentry
Collision Repair Technology
Computer & Networking
Technology
Construction Trades

Diesel & Truck Technology
Drafting & Design Technology
Electrical Systems Technology
HVAC & Plumbing
Masonry
Mechatronics
Welding Technology

In addition to courses, students may have opportunities to experience careers in the Engineering & Industrial Technology fields through job shadows, internships and other real world experiences.



Additional Central PA Engineering & Industrial Technology Occupations

Occupation	Education Level	Entry Annual Wage	Average Annual Wage	Avg. Annual Openings
Architects	BD+	\$57,058	\$81,454	12
Automotive Body and Related Repairers	LT OJT	\$32,558	\$44,952	42
Brickmasons and Blockmasons	PS	\$40,241	\$60,454	18
Bus & Truck Mechanics & Diesel Engine Specialists	LT OJT	\$36,675	\$45,870	65
Chemical Engineers	BD+	\$76,933	\$108,472	4
Computer Numerically Controlled Tool Programmers	PS	\$40,790	\$52,588	6
Electrical & Electronic Engineering Technicians	AD	\$40,096	\$54,742	22
Supervisors of Construction Trades & Extraction Workers	WK EXP	\$49,638	\$70,552	145
Health & Safety Engineers	BD	\$73,046	\$90,339	14
Industrial Truck & Tractor Operators	ST OJT	\$34,442	\$40,456	180
Inspectors, Testers, Sorters, Samplers & Weighers	MT OJT	\$34,544	\$41,005	163
Maintenance & Repair Workers	MT OJT	\$31,798	\$43,707	406
Operating Engineers & Construction Equipment Operators	MT OJT	\$39,420	\$51,940	153
Packaging & Filling Machine Operators & Tenders	MT OJT	\$30,406	\$38,810	163
Plumbers, Pipefitters & Steamfitters	PS	\$39,129	\$55,982	72
Production, Planning & Expediting Clerks	MT OJT	\$36,514	\$46,692	63
Surveyors	BD+	\$48,075	\$64,428	10

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LEGEND:

ST OJT: Short-Term, On-the-Job Training
WK EXP: Related Work Experience
BD/BD+: Bachelor's Degree

MT OJT: Moderate-Term, On-the-Job Training
PS/PS+: Post-Secondary Training
MD/MD+: Master's Degree

LT OJT: Long-Term, On-the-Job Training
AD/AD+: Associate Degree
PhD/PROF: Professional Degree

Members of Career Ready Central PA, a regional organization whose mission is to "implement a comprehensive career education strategy to create and share resources and opportunities for schools, students, families and businesses that will produce a skilled, sustainable workforce," developed this brochure. Career Ready Central PA members represent area school districts, universities, workforce development agencies, local business/industry, and nonprofit organizations. Learn more at www.pathtocareers.org.