



### OCCUPATION PROFILE:

# POLYMECHANIC

A Polymechnic is a manufacturing technician trained in machining, CNC (computer numerical control) programming, assembly, automation, and quality control. Polymechnics manage complex machining work, integrate mechanical and electronic systems, and support process improvements while working safely and communicating effectively. The apprenticeship develops both technical expertise and the soft skills needed to succeed in Indiana's manufacturing industry.

#### *This occupation is ideal for a student who:*

- Likes doing hands-on work, figuring out how items function, and making things.
- Enjoys math, science, engineering, and technology.
- Has a strong work ethic, with attention to detail and the ability to maintain quality standards.
- Works well with teams, communicates effectively, and demonstrates resilience and a willingness to learn.

#### *What is the average starting hourly wage for this apprenticeship?*

The salary varies by employer and by region, but the typical range is \$12-\$17/hour. Apprentices are employees of their company and fall under their employment policies for benefits, performance reviews, and salary increases.

#### *What do apprentices do during their apprenticeship?*

- Manufacture parts using hand tools and machines.
- Assemble and commission mechanical and mechatronic systems.
- Measure and inspect components to exact specifications.
- Use computer-aided design and manufacturing (CAD/CAM) software to model parts and create technical drawings.
- Build and test automated equipment; prepare pneumatic, hydraulic, electrical, and electronic components; wire control panels; program PLCs and robots; and debug systems.
- Weld and fabricate structural assemblies and fixtures.



### TYPICAL SCHEDULE

*What year in school do students begin this apprenticeship?*

11th grade

*How long does this apprenticeship last?*

Three years (year-round)

*How many days each week are students with their employer?*

- 11th grade: Two full days/week
- 12th grade: Three full days/week
- Final year (after high school): At least four full days/week

*What hours do students work when they're with their employer?*

Employers and apprentices work together to identify individual schedules. While hours vary, the goal is for apprentices to work eight-hour days. Students work full-time during summers (40 hours/week).

***What are some of the skills students learn on the job?***

- Use of CAD tools to design parts and basic CAM software to plan machining.
- Knowledge of safety practices, precision measurement, and technical drawing interpretation.
- Hands on experience with manual and CNC machining using real equipment.
- Skills in equipment maintenance and documenting work in digital systems.
- Exposure to basic troubleshooting and problem identification under supervision.
- Teamwork skills for solving problems and driving continuous improvement.
- Professional communication skills for working with supervisors and coworkers.

***What classes do students take at their high school to complete this apprenticeship?***

The student’s school schedule must allow them to leave the school building to work while still completing the classes they need to graduate. Also, students will be required to take several courses as part of their apprenticeship, including technical math and communication, among others. Some of the required classes will be available at their high school as dual-credit courses, and others will be offered at a regional Career and Technical Education Center.

***What credential does a student receive when they complete this apprenticeship?***

Students earn an Employment Honors Plus Seal when they graduate high school and a Polymechanic Credential through INCAP when they finish their apprenticeship. Both are recognized by manufacturers across Indiana as an indicator of experience in the industry. Students can also earn multiple industry recognized certifications during this apprenticeship.

***If a student chooses to continue working after their apprenticeship, what jobs are they qualified for?***

Because the Polymechanic apprenticeship is broad in scope, program graduates are prepared to be hired immediately into a variety of roles that are a step above entry-level. Some of those roles include:

- CNC (computer numerical control) Machinist
- Maintenance Technician
- Assembler
- Tool and Die Technician