



Production Worker (MSSC-CPT, Purdue Polytechnic-PTC or 180 Skills Certified Advanced Manufacturing Technician)

Manufacturing technicians set up, test, and adjust manufacturing machinery and equipment. Even the smallest changes to a machine make the difference between a good product and a bad one. All parts, materials, and machines must meet precise standards.

Technicians may test equipment and use hand tools such as calipers, micrometers, height gauges, protractors, and ring gauges to make adjustments to machinery when problems arise. They follow rules for safety and environmental impact, and inspect finished products making sure they meet quality standards.

In green jobs, technicians may prepare scrap for recycling or disposal, assist in retooling older factories to be more energy efficient, and follow more stringent safety standards when handling toxic waste.

Production technicians must be able to stand for long periods of time and use their hands to handle or operate tools and controls. Workers may be required to wear safety attire or protective gear on a daily basis in workplaces where equipment exposes technicians to loud sounds, hazardous equipment, and contaminates.

Most manufacturing production technicians are employed full time, but overtime may be necessary to meet deadlines or quotas. Because many manufacturers run machinery long hours, shift work and weekend work may be common.

Indiana Wage Information

	Entry	Median
Hourly Wage	\$11.85	\$16.65

Job Outlook in Indiana

Long term	11.24 % (increase)
Short Term	5.08 % (increase)

*Data collected from hoosierdata.in.gov

Job Duties

- Follow all regulations, policies, and procedures for health, safety, and environmental compliance
- Check finished products for quality and see if they match customer specifications
- Set up, start and shut down production equipment
- Calibrate and adjust equipment to ensure quality, using tools such as calipers, micrometers, height gauges, protractors, and ring gauges
- Check the production line to make sure it meets standards for safety and impact on the environment
- Test products for functionality or quality
- Plan and lay out work to meet production and schedule requirements

Important Qualities

Stamina - must be able to stand for long periods of time and perform repetitive work without fatiguing

Control precision - must be able to quickly and repeatedly adjust the controls of a machine to exact positions

Visual acuity - must be able to see details at close range

Monitoring - must be able to assess performance of self, others, or organizations to make improvements or take corrective action

Problem sensitivity - must be able to recognize when something is wrong or likely to go wrong

Concentration - must not be easily distracted while performing a task

Skills and Knowledge

Technical

- Understand manuals, schematics, designs, uses, and repair/maintenance for a wide range of products and machines
- Use knowledge of raw materials, production processes, quality control, and costs to maximize the manufacture and distribution of goods
- Quickly and accurately compare letters, numbers, objects, pictures, or patterns
- Identify the strengths and weaknesses of alternative solutions to problems

English Language Arts

- Understand spoken and written information
- Express ideas clearly when speaking or writing

Math

- Add, subtract, multiply, and divide quickly and correctly
- Knowledge of 9th grade math levels helpful, particularly geometry and algebra

Certification and Advancement

Manufacturing production technicians typically need a high school diploma or equivalent. Experience in repairing, installing, or assembling devices and equipment can be good background for employment. Some employers offer on-the-job training where new technicians are supervised by an experienced technician or engineer to gain experience and learn increasingly difficult tasks and responsibilities. Training may last anywhere between one month to a year.

Many employers prefer to hire individuals with a certificate in manufacturing production technology. Most community colleges and vocational schools offer one-year training and certification programs in manufacturing. Production technician jobs with electrical, electronics, aircraft, and motor vehicle products may require more specialized education.

The Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT) certification training is delivered through both face-to-face instruction and online simulation, consisting of four modules: Safety; Quality Practices & Measurement; Manufacturing Processes & Production; and Maintenance Awareness.

The Production Technician Certificate offered by Purdue Polytechnic consists of passing ten tests throughout the program and culminates in passing simulations in weight and door. The simulations may be adjusted to meet employer requirements.

The 180 Skills Certified Advanced Manufacturing Technician issued by SpaceTec/CertTEC & 180 Skills) covers math, safety, manufacturing teams, communications, manufacturing, engineering processes, logistics, blue print reading, intro to precision instruments, intro to lean manufacturing, quality systems, statistical process, intro to industrial automation, and intro to machining.

Advancement within manufacturing typically requires additional years of work experience or a degree. Programs approved by the Accreditation Board for Engineering and Technology can open doors to positions like Industrial Engineering Technician, Mechanical Engineering Technician, CADD Drafting Technician, Numerical Tool Programmer and Production Supervisor.

How can YOU get involved?

The world of work relies on the foundational skills students acquire in your classrooms and/or programs!

- Know your students'/clients' interests and career goals
- Affirm the value of the skills/hobbies students demonstrate both in and outside of the classroom
- Infuse your classroom culture and/or meetings with career-minded activities
- Provide time to make connections between the material learned in adult education or workshops and students' daily lives/career aspirations
- Know the basic job descriptions and training requirements of in-demand occupations in your area
- Know which WorkINdiana programs are available in your region
- Know the processes for referring students to postsecondary or on-the-job training
- Post resources where students can find more information about further education/training and careers

Sources and Further Information:

www.hoosierdata.in.gov
www.careeronestop.org
www.mynextmove.org

www.bls.gov/ooh/
www.iseek.org/index.jsp
www.indianaskills.com

www.indianacareerexplorer.com
www.readyindiana.org
www.msscusa.org/certification

*Last Updated July 20, 2016