



APPRENTICE

Apprentices are employees who are learning their trade through a registered program that combines on-the-job-training and related classroom instruction to become a skilled trades employee.

JOB TITLES COMMON TO THIS CAREER OCCUPATION INCLUDE:

Apprentice Toolmaker
Apprentice Die Maker
Apprentice Mold Maker

Apprentice Patternmaker
Apprentice Electrician

Apprentice Millwright
Apprentice Pipe Fitter
Apprentice Machine Repairman

SAGINAW VALLEY

Each ladder depicts a series of work experiences that leads to more challenging and higher paying opportunities. While every level of the ladder can provide a satisfying job, some employees will choose to gain even more skills and responsibilities that will advance them in their careers. To do so, they will need more education, training, and work experiences. Some jobs will require a certificate, a license, or an advanced degree.

CLIMBING THE CAREER LADDER

ADVANCED LEVEL

Bachelor's degree or proven technical skills that can be demonstrated through industry experience

Design Engineer

\$20.00-\$30.50/hour

Manager

\$19.00-\$32.00/hour

MID LEVEL

Associate's degree or equivalent training and experience

Design Specialist

\$15.00-\$23.50/hour

Skilled Trades

\$17.85-\$24.00/hour

Manufacturing Support Specialist

\$15.00-\$23.50/hour

ENTRY LEVEL

High school diploma and completion of the Engineering/Manufacturing and Industrial Technology Career Pathway requirements and/or appropriate career and technical education classes

CAD and Design Trainee

\$8.10-\$12.00/hour

Apprentice

\$8.00-\$15.00/hour

Machinist Trainee

\$8.10-\$12.00/hour

Wages will vary within this occupation based on the employee's education, training, and years of apprenticeship.

JOB DESCRIPTION

Each occupation is described in terms of specific tasks and typical job duties.

AN APPRENTICE MUST BE ABLE TO:

- Learn and safely apply a wide variety of skills used in these occupations
- Learn to read and understand blueprints and other needed job information
- Apply mathematics
- Learn good solutions to problems quickly and at the lowest cost
- Understand and learn the use of measuring tools and equipment
- Carry a project through from start to completion
- Communicate with coworkers and supervisors to give and receive information and instructions
- Work alone or as part of a team
- Be reliable and punctual in attendance

WAGES

Wage information was obtained from the Michigan Department of Labor and Economic Growth and from local employers to give a general idea of the wages and salaries for this occupation.

WAGE RANGE

\$8.00-\$15.00/hour

WORKING CONDITIONS

The manufacturing plant is noisy and can be oily and misty due to machines cutting with oils and water-based coolants. Apprentices must wear personal protection equipment. For example, they must wear safety glasses, hearing protection, and safety shoes. Apprentices are on their feet for eight to 12 hours a day, constantly monitoring their work area.

EDUCATION AND TRAINING

Courses, programs, and certificates that are needed for employment are offered by local education and training providers.

HIGH SCHOOL

- Completion of high school's Engineering/Manufacturing and Industrial Technology Career Pathway and/or appropriate career and technical education classes
- Algebra
- Geometry
- Trigonometry
- Physics
- Career studies
- Co-op work experience
- Saginaw/Midland/Bay Michigan Works! automation certificate

COMMUNITY COLLEGE

- Delta College: individual classes; first through fourth year apprentice education and training; associate's in applied science, skilled trades; bachelor of science transfer programs

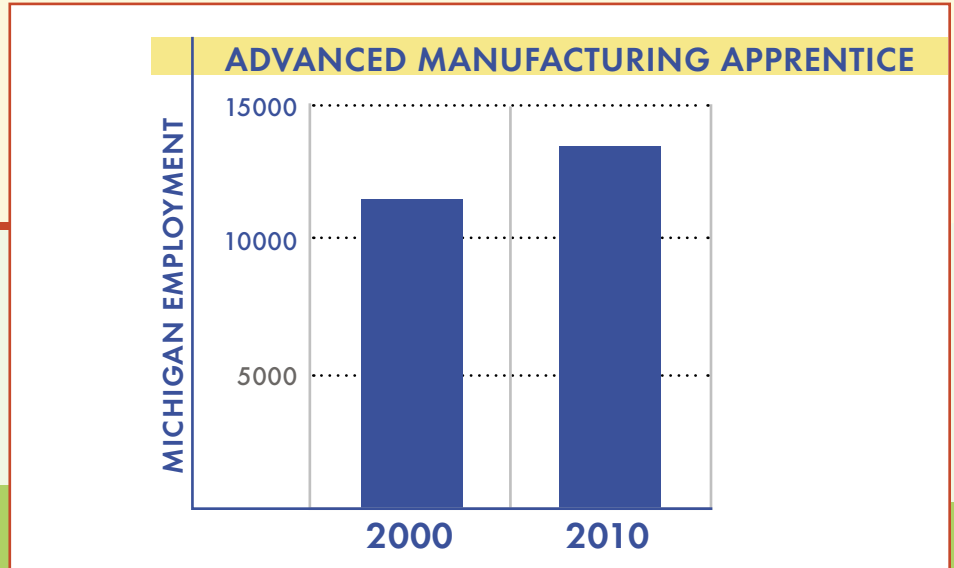
LOCAL EDUCATION AND TRAINING PROVIDERS

- Local school districts
- Bay-Arenac ISD Career Center
- Saginaw Career Complex
- Saginaw/Midland/Bay Michigan Works!
- Delta College



JOB OUTLOOK

The rate of growth within this occupation is projected by data from local employers and the Michigan Department of Labor and Economic Growth.



ADVANCEMENT

Apprentices are employees beginning their four-year education and training programs to become skilled trade employees. Classes specified by the Bureau of Apprenticeship and Training make them very valuable employees to their companies. With continuing education and on-the-job training they may receive promotions to managerial or supervisory jobs. When they finish their apprenticeship training, they then advance to journeyman status. An experienced employee supervises apprentices and helps them learn how to make quality products. Apprentices are usually given progressively challenging job assignments to increase their skills.

WHAT THE EMPLOYER SAID



WHAT DO YOU LOOK FOR IN A POTENTIAL EMPLOYEE FOR THIS POSITION?

"We look for these qualities in a potential employee: at minimum a high school graduate with strong math background, enjoys hands-on learning, has good communication skills, and gets along well with others."

Dennis Fauver, apprentice program administrator
GM Powertrain – Saginaw Metal Casting Operations

STAR PROFILE

This interview is intended to show you what is needed to be a star employee.



EMPLOYEE:
AARON HOLMES

OCCUPATION:
**APPRENTICE
ELECTRICIAN**

COMPANY:
**GM POWERTRAIN –
SAGINAW METAL
CASTING OPERATIONS**

TELL US HOW YOU ATTAINED YOUR CURRENT POSITION.

I got an apprenticeship application through my father. I filled it out and took the apprenticeship test. Fortunately, I scored high enough to be considered for a position. I then had an interview and was offered the opportunity. Over 500 people applied to take the apprenticeship test at the Saginaw Metal Casting Operations plant and only 100 even got the chance to take the test.

DESCRIBE YOUR TYPICAL DAY.

My typical day involves construction and maintenance. Some jobs are strictly new installation, where you are planning and executing plans, while others are simply maintaining current equipment and waiting for breakdowns.

WHAT QUALITIES MAKE SOMEONE A “STAR” IN THIS OCCUPATION?

You need to be flexible, work well with others, and be self-motivated.

WHAT TRAINING AND EDUCATION DID YOU NEED TO ENTER THIS POSITION?

I didn't need anything other than a high school diploma and to pass the apprenticeship test to get an apprenticeship position. But it is helpful to have trade-type classes, such as advanced math, print reading, and computer programming. I went to Delta College and took classes to be an apprentice and spent over 8,000 hours at the plant training with experienced journeymen.

WHAT DO YOU LIKE MOST/LEAST ABOUT YOUR JOB?

I enjoy the variety of different jobs inside the trade and the ability to advance in the trade. What I like least about my job are some of the problems that arise due to union/management relations.

WHAT ADVICE CAN YOU GIVE SOMEONE SEEKING A JOB IN YOUR FIELD?

The advice I would give someone who is seeking a job in this occupation is to take classes that would relate to this field. In addition, take classes such as algebra, geometry, trigonometry, and physics so that you can score well on the apprenticeship test and be prepared to work in the trade.

ARE THERE ANY LICENSES OR CERTIFICATIONS NEEDED FOR YOUR POSITION?

As an apprentice you work toward a journeyman card. There are licenses and certificates that you can acquire inside the trade as you advance in your career, such as in welding (U.S. Department of Labor Bureau of Apprenticeship and Training).

ACKNOWLEDGMENTS

The Career Ladders project began as a Saginaw County Vision 2020 initiative. To date, more than 300 individuals have been involved in the project. It is impossible to list them all, but the Comprehensive Education and Workforce Development Committee appreciates each one and the incredible participation by our major employers and educational institutions, as well as the support from the Arnold and Gertrude Boutell Memorial Fund, The Dow Chemical Company, The Dow Corning Foundation, the Fordney Club, the Hospital Council of East Central Michigan, the Michigan Department of Labor and Economic Growth, the National Tooling and Machining Association – Saginaw Valley Chapter, the Saginaw Community Foundation, the Saginaw County Business and Education Partnership, the Saginaw County Chamber of Commerce Foundation, Saginaw County's local school districts, Saginaw County's Promise, the Saginaw County Vision 2020, the Saginaw Future Inc., the Saginaw/Midland/Bay Michigan Works!, the Saginaw Township Business Association, the Saginaw Valley Manufacturers' Association, and the Saginaw Valley Tech Prep Partnership. We also want to thank NOVA for their guidance.

EQUAL OPPORTUNITY EMPLOYER/PROGRAM. AUXILIARY AIDS AND SERVICES ARE AVAILABLE UPON REQUEST TO INDIVIDUALS WITH DISABILITIES.