

MACHINIST TRAINEE

Machinist trainees are employees who are learning to produce parts for industrial machines, aircraft, cars and trucks, as well as other products.



JOB TITLES COMMON TO THIS CAREER OCCUPATION INCLUDE:

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| Computer Numeric Control Turning Center Trainee | Computer Numeric Control Machining Center Trainee | Ram Electronic Discharge Machining Trainee |
| Computer Numeric Control Lathe Trainee | Milling Machine Trainee | Outside Diameter/Inside Diameter Grinder Trainee |
| Engine Lathe Trainee | Boring Mill Trainee | Surface Grinder Trainee |
| Press Operator Trainee | Wire Electronic Discharge Machining Trainee | Centerless Grinder Trainee |

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

Manufacturing Engineer
\$19.50-\$26.75/hour

Supervisor
\$19.00-\$27.00/hour

MID LEVEL

Associate's degree or equivalent training and experience

Assembly Specialist
\$12.50-\$22.10/hour

Machining Specialist
\$16.00-\$23.50/hour

Fabricating Specialist
\$14.50-\$19.75/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

Co-op/Internship Student
\$6.00-\$8.00/hour

Machinist Trainee
\$8.10-\$12.00/hour

Welding Trainee
\$8.10-\$12.00/hour

Wages will vary within this occupation based on the ability of the employee to operate machinery without the aid of close supervision. The ability to operate more than one type of machine will also increase the wage and the employee's advancement opportunity in the company.

JOB DESCRIPTION

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

A MACHINIST TRAINEE MUST BE ABLE TO:

- Learn to read and understand blueprints and other job specifications
- Learn the use of precision measuring methods and equipment
- Apply mathematics and learn to do calculations to determine machine speeds and cutting rates
- Be capable of operating machinery to produce quality parts
- Communicate with coworkers and supervisors to receive instructions and coordinate activities
- 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

\$8.10-\$12.00/hour

WORKING CONDITIONS

Machinist trainees often work inside in well-ventilated areas and on rare occasions work outdoors. They must wear personal protection equipment, such as safety glasses and earplugs. They are sometimes exposed to hazardous equipment, coolants and lubricants. They usually work in a clean plant environment, stand for long periods of time, and lift and carry parts.

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, such as machine tool technology or the machine trades program
- Co-op work experience
- Saginaw/Midland/Bay Michigan Works! automation certificate

COMMUNITY COLLEGE

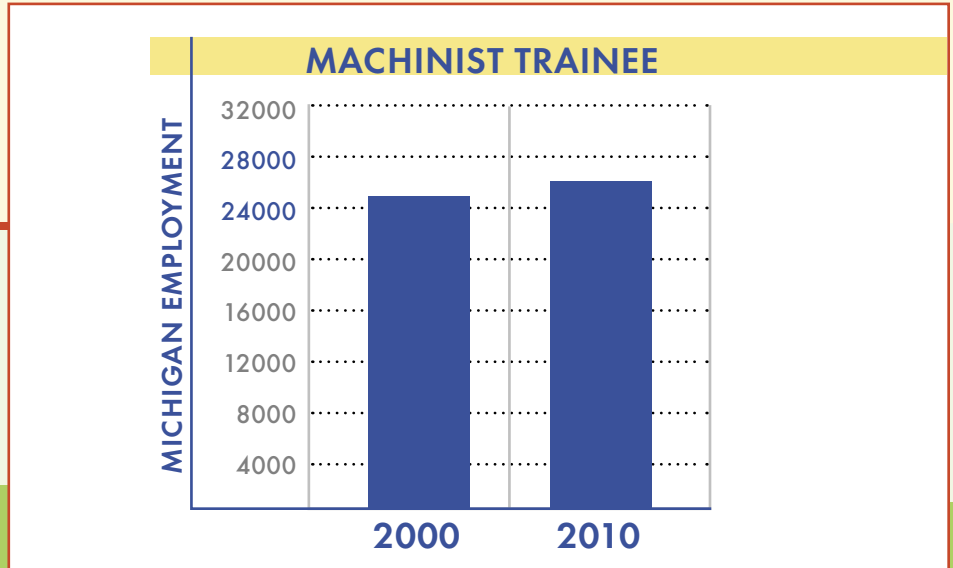
- Delta College: individual classes; machinist certificate; associate's degree in applied science, manufacturing technology

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

Machinist trainees are employees beginning their careers in advanced manufacturing. Trainees are supervised by experienced machinists who help the trainee learn how to best operate the machinery and produce quality parts. With continuing education and on-the-job training, they will advance to a machining specialist position, or be considered for other promotions within the company. Most companies will provide a training plan for the new employee. Trainees 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 someone with a good work ethic, who has a willingness to learn. The employee also must be able to get along with people. The trainee has the opportunity to work with many other experienced employees and can see how each one has a different way of doing the job assignment. The trainees can then pick the way that they like best.”

Steve Weisenberger, chairman UAW apprentice committee
Delphi Automotive Systems – Delphi Energy and Chassis

STAR PROFILE

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



EMPLOYEE:
CHRISTIE VANNESS

OCCUPATION:
**TOOLMAKER
APPRENTICE**

COMPANY:
**DELPHI AUTOMOTIVE
SYSTEMS – DELPHI
ENERGY AND CHASSIS**

TELL US HOW YOU ATTAINED YOUR CURRENT POSITION.

I started working at Delphi in the security department. One day they were handing out apprentice applications. I submitted mine and was chosen to take the apprenticeship test. I passed the test but wanted to improve my score, so I took it again. I did improve my score, had an interview, and was hired.

DESCRIBE YOUR TYPICAL DAY.

I come in around 8 a.m. and ask the supervisor what jobs he has in line for the day. As I complete each job, I place them on the shelf and start another job.

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

I had Blueprint Reading, Machine Shop I, Machine Shop II, Machine Shop III, and Metals classes.

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

A star is a toolmaker apprentice who works with precision. That is, they aren't finished until the part is perfect. Also, a star must have the ability to learn fast and learn how to work efficiently while doing a quality job.

WHAT DO YOU LIKE MOST/LEAST ABOUT YOUR JOB?

I enjoy seeing the finished project. I like seeing how parts that I make are being used. I also like constructing a working part out of a solid piece of stock material.

The things I like least are that there are not many women in the trades, so I feel like I have to prove myself by doing more and better work. I also don't like to do 200 or 300 pieces of the same thing. I don't get a chance to be creative when I do repetitive work.

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

My advice is to get as much education as possible. Really learn your algebra and trigonometry. Have a desire to learn as much as you can. And, never be afraid to ask questions.

ARE THERE ANY LICENSES OR CERTIFICATIONS NEEDED FOR YOUR POSITION?

There are no licenses or certifications needed for this position.

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.