



Machining Technology

Advanced Manufacturing

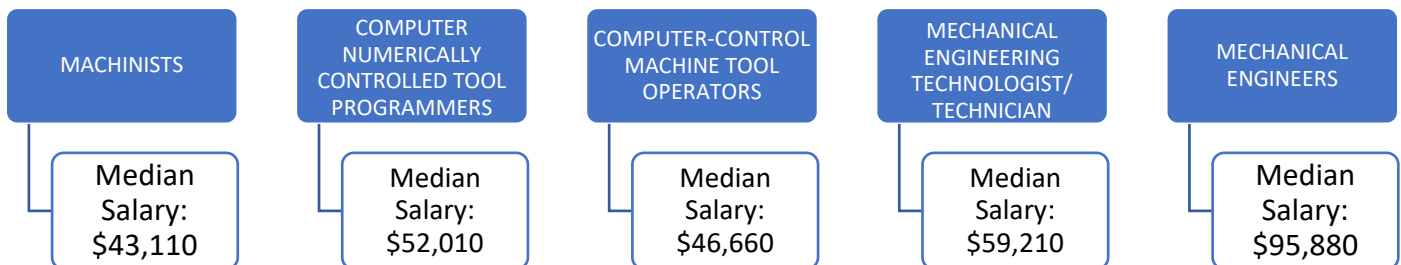
JOB OUTLOOK

Job demand for machinists is strong. Machining technology, using lathes, milling machines, and grinders, is a critical occupation in every manufacturing facility ensuring many opportunities for career advancement in manufacturing industries. Tennessee is home to a strong base of manufacturers representing many diverse industries, led by the state’s automotive sector, which has become a regional and national powerhouse. The continual growth of manufacturing combined with the number of workers retiring ensures that machinist remains a high demand occupation in Tennessee.



OCCUPATION PROFILE

Machining Technology is the heart of manufacturing things. Machinists, Computer Numerical Controlled (CNC) Machine Tool Operators and Programmers, and Manufacturing Production Technicians set up and operate a variety of machine tools to produce precision parts and instruments. Technicians may also fabricate and modify parts to make or repair machine tools or maintain machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures. Mechanical engineers plan and design the tools and equipment used in machining.



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Memphis-Shelby County Schools



ROAD MAP TO SUCCESS

PROGRAM OF STUDY PROFILE

The Machining Technology program of study is designed for students interested in becoming a computer-controlled machine tool operator, a CNC machining tool programmer, or a machinist. This program focuses on safety practices concerning: machining technology; proper measurement and layout techniques; reading and interpreting specification drawings and blueprints; production design processes; quality control procedures; machine parts to specifications using both manual and computer-controlled machine tools; and measuring, examining, and testing completed products to check for defects and conformance to specifications. Upon completion of this program, proficient students will be prepared to pursue industry certification at a technology college or more advanced coursework at a two-year or four-year postsecondary institution.

CAREER PATHWAY

SECONDARY EDUCATION

- * Principles of Manufacturing
- * Principles of Machining I
- * Principles of Machining II
- * Manufacturing Practicum

CERTIFICATION

- * Machine Tool Operations/Technology

ASSOCIATES

- * A.A.S. Industrial Technology: Machine Tools
- * A.A.T. Machining Technology

BACHELORS

- * B.S. Mechanical Engineering Technology
- * B.S. Mechanical Engineering

MSCS PARTICIPATING SCHOOLS: Southwest CTC

LOCAL EMPLOYERS: Atlantic Track, FedEx, Hershey Careers, Jordan Aluminum, MLGW, National Guard Products, Nucor Steel, Smith & Nephew, Williams-Sonoma