



**Finger Lakes Advanced
Manufacturers' Enterprise**
Building Minds that Make It

ADVANCED MANUFACTURING CAREERS and PROGRESSION

Precision Machining (Optical Fabrication), Certificate This certificate program is designed to prepare graduates for employment in the precision machining industry with special emphasis on optical fabrication. Optical fabrication is the manufacturing of optical components used in lasers, fiber optics, and digital imaging. Students will learn the principles and practices of precision metalworking and then apply these skills to the materials used in fiber optics, digital imaging, lasers, and other technological applications		
Related Careers/Career Progression	Description	Average Hourly Wage
Cutting, Punching, and Press Machine Setter, Operator/Tender,	Set up, operate, or tend machines to saw, cut, shear, slit, punch, crimp, notch, bend, or straighten metal or plastic material.	\$15.37
Drilling and Boring Machine Tool Setter Operator/Tender	Set up, operate, or tend drilling machines to drill, bore, ream, mill, or countersink metal or plastic work pieces.	\$15.54
Grinding, Lapping, Polishing, and Buffing Machine Tool Operator/Tender,	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic	\$16.98
Maintenance Worker, Machinery	Set up, operate, or tend grinding and related tools that remove excess material or burrs from surfaces, sharpen edges or corners, or buff, hone, or polish metal or plastic	\$21.54
Computer-Controlled Machine Tool Operator	Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.	\$16.83
Machinist	Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical.	\$18.45
Computer Numerically Controlled Machine Tool Programmer, Metal and Plastic	Develop programs to control machining or processing of metal or plastic parts by automatic machine tools, equipment, or systems	\$22.51
Tool and Die Maker	Analyze specifications, lay out metal stock, set up and operate machine tools, and fit and assemble parts to make and repair dies, cutting tools, jigs, fixtures, gauges	\$24.92
Industrial Machinery Mechanic	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems	\$22.26
Industrial Engineering Technician	Apply engineering theory and principles to problems of industrial layout or manufacturing production, usually under the direction of engineering staff.	\$23.56

- Resource for information - Monroe Community College website - <http://careercoach.monroecc.edu>

Computer Aided Drafting and Design, Certificate
 Prepares students for challenging careers in CAD design and drafting. The mechanical designer of today requires knowledge in many areas including mechanical drafting, computer aided design and drafting, machine shop, robotics and machine components. The courses emphasize the national standards for drafting and geometric dimensioning and tolerancing (GDT).

Related Careers/Career Progression	Description	Average Hourly Wage
Maintenance Worker, Machinery	Lubricate machinery, change parts, or perform other routine machinery maintenance	\$21.54
Industrial Machinery Mechanic	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems	\$22.26
Sales Representative, Wholesale and Manufacturing, Except Technical and Scientific Products	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold	\$16.98
Commercial and Industrial Designer	Develop and design manufactured products, such as cars, home appliances, and children's toys. Combine artistic talent with research on product use, marketing, and materials	\$29.87
Mechanical Engineering Technician	Apply theory and principles of mechanical engineering to modify, develop, test, or calibrate machinery and equipment under direction of engineering staff or physical scientists	\$23.80
Electro-Mechanical Technician	Operate, test, maintain, or calibrate unmanned, automated, servo-mechanical, or electromechanical equipment. May operate unmanned submarines, aircraft, or other equipment	\$17.12
Aerospace Engineering and Operations Technician	Operate, install, calibrate, and maintain integrated computer/communications systems, consoles, simulators, and other data acquisition, test, and measurement instruments	\$18.34
Mechanical Drafter	Prepare detailed working diagrams of machinery and mechanical devices, including dimensions, fastening methods, and other engineering information	\$23.58
Electrical Drafter	Develop specifications and instructions for installation of voltage transformers, overhead or underground cables, and related electrical equipment used to conduct electrical energy from transmission lines or high-voltage distribution lines to consumers	\$27.45
☆Electronic Drafter	Draw wiring diagrams, circuit board assembly diagrams, schematics, and layout drawings used for manufacture, installation, and repair of electronic equipment	\$27.45
Civil Drafter	Prepare drawings and topographical and relief maps used in civil engineering projects, such as highways, bridges, pipelines, flood control projects, and water and sewerage control systems	\$20.06
Architectural Drafter	Prepare detailed drawings of architectural designs and plans for buildings and structures according to specifications provided by architect	\$20.06

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