



M-Powered Level II Career Profile Fast Facts

Universal Skills and Knowledge

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| <ul style="list-style-type: none"> Good communication (written and oral) Reason and problem solving Mechanical: designing, using, and repairing machines and tools. English language Controlling Quality Reading and interpreting blueprints | <ul style="list-style-type: none"> Math: rules and uses of numbers including arithmetic, algebra, geometry, and statistics Production and processing: how products are made and supplied Computers and electronics: computer hardware and software |
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CNC Mill or Lathe Technician

Job Description	CNC Technicians are machinists with additional skills in programming, setup and operating computer driven machine tools. Most high-tech products including computers, aircraft and medical devices use precision components made on CNC machine tools. After determining the best manufacturing strategies and selecting tools, a CNC program is developed. CAD/CAM (Computer Aided Design/Computer Aided Manufacturing) software is commonly used to assist in developing the CNC program. CNC machine types: Lathe and Mill. Lathe is a rotary process in which the tooling is stationary and the work moves. Milling machine is a linear process where the tool moves and the work stays stationary. Skill sets are transferable between machines.
Avg. Starting Wage	\$33,280-\$37,440+
Additional skills/knowledge	<ul style="list-style-type: none"> Understanding of machines, tooling, and additional methods used to produce and inspect a part. Monitoring performance and equipment
HTC Credits & Courses	Manual Milling I (MACH1125 3 cr) or Turning Technology I (MACH1110 3 cr); Introduction to CNC (MACH1140 3 cr); CNC Set-up & Operations (MACH2400 3 cr); 9 total credits earned
Credentials	National Institute for Metalworking Skills (NIMS): 2-3 standards

Precision Metal Stamping Technician

Job Description	Precision Metal Stamping Technician relies on a strong background of machining skills. These skills include the understanding of metal stamping machine set-up and operations, including single-hit, multi-hit, and progressive tooling, tooling, blueprints, and additional methods used to produce and inspect a part.
Avg. Starting Wage	\$33,280-\$37,440+
Additional skills/knowledge	<ul style="list-style-type: none"> Understanding of machines, tooling, and additional methods used to produce and inspect a part. Monitoring performance and equipment
HTC Credits &	Metrology and Measurement Techniques (METS1010 3 cr); Precision Metal

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Courses	Stamping Operations (WLDG 1370); Precision Metal Stamping Setup (WLDG1375); 9 total credits earned
Credentials	National Institute for Metalworking Skills (NIMS): 4 standards

Quality Control Technician

Job Description	Quality is the process of making sure a product meets the customer's expectations. A quality technician supports the activities of the quality engineers and managers in day-to-day manufacturing activities and issues with customers and suppliers. The engineers define what methods and equipment will be used to measure the tolerance on the product blueprints, while technicians operate the test machines and collect data; perform inspections; checks, test and sampling procedures according to Standard Operating Procedures; performs in-process inspection and documents results.
Avg. Starting Wage	\$33,280-\$37,440+
Additional skills/knowledge	<ul style="list-style-type: none"> • Great attention to detail • Strong Analytical Skills
HTC Credits & Courses	Quality Control (METS1050 3 cr); Quality Assurance (MACH2240 2 cr); Medical Device Quality Systems (METS1035 3 cr); 8 total credits earned
Credentials	American Society of Quality (ASQ): 1 standard

Clean Room Manufacturing Technician

Job Description	Clean Room Manufacturing Technicians will have career opportunities as entry-level assemblers, quality control specialists or machine operators employed in both small and large manufacturing firms that produce durable goods. Specialists can progress to manufacturing engineering technician, production lead, R&D technician, or inspector. Well-paying jobs are available in the medical device and biomanufacturing fields. Excellent opportunities exist for personal and professional growth to high-skill, high-wage positions in these industries.
Avg. Starting Wage	\$24,000-\$33,000+
Additional skills/knowledge	<ul style="list-style-type: none"> • Great attention to detail • Good hand-eye coordination
HTC Credits & Courses	Medical Device Manufacturing Techniques (METS1025 4 cr); Controlled Environment & Aseptic techniques (METS1015 1 cr); Metrology and Measurement Techniques (METS1010 3 cr); Medical Device Quality Systems (METS1035 3 cr); 11 total credits earned
Credentials	None

Research & Development (R&D) Technician

Job Description	Research and Development Technicians are critical members of a company's research and development teams. Research and development laboratory technicians work as part of a team of scientists and/or engineers to plan, coordinate, collect, analyze, interpret and communicate the data required to
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	develop the next generation of products. The knowledge and skills obtained will prepare a technician to immediately contribute to the research and development process of planning, coordinating, collecting, analyzing, interpreting and communicating data. The specific application of the learned knowledge and skills may vary with industry, but the ability to successfully collect and scrutinize data will make students well sought after by local companies that research and develop products. In addition, R&D technician's job is to provide support to ensure the manufacturing process operates smoothly.
Avg. Starting Wage	\$33,280-\$37,440+
Additional skills/knowledge	<ul style="list-style-type: none"> • Great attention to detail • Able to quickly apply their mastered skills to new applications • Flourish using the computer as a data acquisition and analysis tool • Ability to conceptualize innovative and practical solutions
HTC Credits & Courses	Biology in Society (BIO2001 4 cr); Introduction to R&D (RAND1000 2 cr) Advanced R&D Techniques (RAND2800 3 cr); 8 total credits earned
Credentials	None

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