M-Powered Career Profile
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.
Skills/Knowledge Needed:	Graduates will be prepared to be successful in these manufacturing positions by obtaining applied skills and knowledge of: • FDA and ISO regulations • Controlled environment practices • Quality systems • Metrology • Employment communication skills • General manufacturing techniques relevant to the medical device industry
Interest in:	• Consider support from their employer important. They like to be treated fairly and have supervisors who will back them up. They prefer jobs where they are trained well. • Consider independence important. They like to make decisions and try out ideas on their own. They prefer jobs where they can plan their work with little supervision. • Have conventional interests. They like work activities that follow set procedures, routines, and standards. They like to work with data and detail. They prefer working where there is a clear line of authority to follow.
Education/Experience:	High school diploma or Manufacturing certificate or A.S./equivalent and 0-2 years experience in manufacturing environment
Starting Wages:	$24,000-$33,000
Alternate Titles:	Clean Room Technicians; Assembly Technicians; Quality Control Specialists

Knowledge and Skills Obtained

Course	Description
Medical Device Manufacturing Techniques	This course introduces the student to manufacturing in the medical device industry. Topics covered include the roles of regulation, documentation,

METS1025 4 Credits	identification and traceability, procedures and process control, and product acceptance in the device industry. Common device materials, joining methods, catheter assembly, basic test methods, packaging, and sterilization are discussed. Basic skills in microscope use, ergonomics, wire preparation and termination; soldering and rework; ESD management; adhesive preparation, application, and curing; and trouble-shooting are developed.
Quality Control METS1050 3 Credits	This course introduces students to basic quality control principles, techniques, and procedures used by organizations to assure customer satisfaction of a product and/or service. This course includes quality control concepts utilizing common measurement methods and tools used for inspection.
Blueprint reading MACH1056 3 credits	This course is designed for people who are currently working on, or training to be employed in technical positions that require the use of engineering drawings. Dimensions and notes, multi-view drawings, tolerancing and shop sketching will be given consideration. This course will focus on the latest drafting conventions including ANSI standards. Students will use textbooks and handouts that guide them through how blueprints are developed and how to interpret them.
Prealgebra MATH100 2 Credits	This course includes practical applications of the basic mathematical operations including: fractions, decimals, percents, ratio, proportion, measurement, perimeter, area, volume, descriptive statistics and introductory algebra.
Controlled Environment & Aseptic Techniques METS1015 1 Credits	This course introduces the student to controlled environment and aseptic work areas. Procedures for human, product, and equipment entry and exit from controlled environments are introduced and practiced. Basic requirements for working with blood borne pathogens and pyrogens, creating sterile fields, and biohazard disposal are reviewed. Students will gain an understanding of the ISO-14644-1 and Federal-209-E standards.
HTC Credits Earned:	**13**
Credentials Taken:	**None**

Career Pathway		
Career Progression	**Wage**	**Continued Education**
Clean Room Technician	$24,000-$33,000+	Certificate, Diploma, 1 Specialty
Calibration/Metrology Technician	$33,280-$37,440+	AAS Degree, 1 Specialty
Inspector	$33,280-$37,440+	AAS Degree, 1 Specialty
Mfg Process Control Technician	$33,280-$37,440+	AAS Degree, 1 Specialty
Technician Manager	$41,600-$49,920+	AAS Degree, Multiple Specialties
Specialized Engineer	$45,760-$58,240+	BA/BS Degree