

POST-SECONDARY ADVANCED MANUFACTURING TRAINING PROGRAMS*

*The following is a list of training programs that are currently approved for Individual Training Accounts (ITAs) in Metro North. It is updated regularly, but may not be comprehensive. If you know of an advanced manufacturing program that serves the Metro North region that is not represented here, please send an email to: info@mnreb.org.

Program Name: **Program #8-Electronics Technician**
Location: Bay State School of Technology, Canton
Description: The Electronic Technician program consists of instruction and lab work on basic electricity, basic electronics, digital and analog technology, computer construction & networking. Includes 30 hours for A+PR.
Hours Per Week: 24
Average # of Weeks: 51
Contact: Lawrence Fay (781) 828-3434

Program Name: **C009-General Machining Shop Practices**
Location: Center for Manufacturing Technology (CMT), Woburn
Description: General Machine Shop Practices is a 40-week course offered in a state-of-the-art multimedia learning and hands-on practical application within a clean and well equipped training facility. It is a more comprehensive course than the 16-week introductory course (also offered by CMT). Immediately upon enrollment, each student is assessed and then evaluated for remedial assistance. CMT's enrollment cycle is 32 hours per week. With 101 individual classes taught with interactive two-hour lessons, the training is challenging but very clear. At the end of the program, participants earn 4 certificates of completion of program & complete 5 labs that test their ability in machining on their own.
Hours Per Week: 20
Average # of Weeks: 52
Contact: Joanna Dowling (781) 935-4940 ext. 116

Program Name: **Introduction to General Machine Shop Practices with CNC Mill**
Location: Center for Manufacturing Technology, Woburn
Description: This program consists of: Math Fundamentals; Introduction to SolidWorks&3D Models; Blueprint Reading; Mechanical Drawing with SolidWorks; Work Holding; Geometric Dimensioning & Tolerancing; Bench Work & Layout; Milling Basics, Manual Lathe with Threading; Proto TRAK MC Programs & Training; Introductory CNC Machining; Hass Mill Control Panel Overview; and Basic Part Programming.
Hours Per Week: 20
Average # of Weeks: 19
Contact: Joanna Dowling (781) 935-4940 ext. 116

Program Name: **Electronic Assembly, Soldering and Inspection Certification Course**
Location: LARE Training Center, Andover
Description: This program consists of: Through Hole Assembly & Soldering; Documentation; and Surface Mount Assembly & Soldering. IPC-A-610 & J-STD-001 Standards. Students who meet all of the requirements will graduate with IPC-A-610 Certification and J-STD-001 Certification.

Hours Per Week: 25
Average # of Weeks: 10
Contact: Maria Serrano-Montero (978) 685-2151 ext. 6712

Program Name: **ESL/Electronics Assembly Quality Control**
Location: LARE Training Center, Andover
Description: This program includes: ESL classes; PCB Assembly & Soldering; Quality Control; and Surface Mount Assembly & Soldering. IPC-A-610 Certification.
Hours Per Week: 25
Average # of Weeks: 10
Contact: Maria Serrano-Montero (978) 685-2151 ext. 6712

Program Name: **GED Prep and Electronic Assembly, Soldering and Inspection Certification Course**
Location: LARE Training Center, Andover
Description: This program includes: Through Hole Assembly & Soldering; Documentation; and Surface Mount Assembly and Soldering. IPC-A-610 & J-STD-001 Standards. Passing students will graduate with IPC-A-610 Certification and J-STD-001 Certification.
Hours Per Week: 25
Average # of Weeks: 24
Contact: Maria Serrano-Montero (978) 685-2151 ext. 6712

Program Name: **Advanced Manufacturing Electronics Program**
Location: Middlesex Community College, Lowell
Description: The Advanced Manufacturing Electronics Program includes three components: foundational skills, theory and application, and a two-week unpaid internship or job placement supported by work and career readiness classes. The foundational component will provide basic skills in math, technical communication, and computer usage. Following completion of the foundational training, students focus on the theory and application component of electronics. Minimum two-week unpaid internship or on-the-job training is required. Upon completion of this program, students will be prepared to enter entry-level positions in advanced manufacturing with a focus in electronics.
Hours Per Week: 20
Ave. Weeks: 25
Contact: Lisa Tuzzolo (978) 656-3109

Program Name: **Biomanufacturing Technician**
Location: Minuteman Technical Institute, Lexington
Description: This program provides students with a solid introduction to the production of biopharmaceuticals and the biopharmaceutical industry. Topics covered include: Current Good Manufacturing Practices; Laboratory and Manufacturing area Safety; Using, Authoring, Reviewing and Revising of Standard Operating Procedures (SOPs); Upstream Manufacturing -- fermentation and culture procedures from thaw to harvest; Downstream manufacturing -- process chromatography, virus inactivation or removal, ultrafiltration/diafiltration (UFDf), and fill and finish; and general manufacturing -- aseptic techniques, cleaning and sterilization, preparation of solutions, component preparation,

normal and tangential flow filtration, environmental controls, process controls, and process engineering.

Hours Per Week: 30
Average # of Weeks: 18
Contact: Minuteman Technical Institute (781) 861-7151

Program Name: Basic Electronics Training

Location: Northern Essex Community College, Lawrence

Description: This program begins with a 185-hour foundation skills component that includes a 30-hour math refresher course and a 30-hour basic math course. Other components: career readiness, computer skills, OSHA, Lean & Six Sigma, and communications. A 30-hour Job Shadow experience is included. The Foundation Skills course is at Northern Essex Community College, Riverwalk, in Lawrence. Trainees enrolled in Basic Electronics will receive 340 hours of electronics training at Greater Lawrence Technical School, and will cover: digital and analog electronics, machine math, soldering, micro-systems, and electronics testing. All trainees participate in a 70-hour internship with local employers.

Hours Per Week: 20
Ave. Weeks: 26
Contact: Renee Deyermond (978) 659-1223

Program Name: Basic Machining Training

Location: Northern Essex Community College, Lawrence

Description: The program begins with a 185-hour Foundation Skills component that includes a 30 hour math refresher course and a 30-hour basic math course. Other components: career readiness, computer skills, OSHA, Lean & Six Sigma, and communications. A 30-hour Job Shadow experience is included. The Foundation Skills course will be held at Northern Essex Community College, Riverwalk, in Lawrence. Trainees enrolled in Basic Machining will receive 365 hours of machining training at Whittier Regional Technical High School in Haverhill, MA. The training covers topics such as metrology, blueprint reading, GDT, Master CAM, and CNC. Trainees will also be prepared for NIMS Certification. All trainees will participate in a 70-hour Internship with local employers

Hours Per Week: 20
Average # of Weeks: 28
Contact: Renee Deyermond (978) 659-1223

Program Name: Electronic Equipment Technology Certificate

Location: Northern Essex Community College, Haverhill, Lawrence

Description: This program is designed to prepare students for entry-level employment as entry-level Electronic Equipment Servicing Technicians.

Hours Per Week: 20
Average # of Weeks: 30
Contact: Michael Markham (978) 566-3741

Program Name: **Electronic Technology (Computer Systems Option)**
Location: Northern Essex Community College, Haverhill
Description: The Associate in Science Degree - Computer Systems Option is a career program designed to train students for employment as computer technicians. A strong foundation in analog electronics is combined with courses emphasizing digital and computer applications.
Hours Per Week: 14 (average)
Average # of Weeks: 60
Contact: Michael Markham (978) 566-3741

Program Name: **Engineering Science**
Location: Northern Essex Community College, Haverhill
Description: This program provides students the opportunity to explore various engineering fields so they can make an informed decision about which field is the right fit for them. Upon completion, students are prepared to transfer to a four-year college.
Hours Per Week: 21
Ave. Weeks: 60
Contact: Michael Markham (978) 566-3741

Program Name: **Associates Degree-Biotechnology Manufacturing and Compliance**
Location: Quincy College (City of Quincy), Quincy
Description: Designed to prepare students for entry-level positions in the biomanufacturing or biomedical research industries, the Associate Degree in Biotechnology Manufacturing is a 63-credit program consisting of seven general education courses (core), and 18 required courses. Students develop a broad laboratory science-based background through courses focused in the life and chemical sciences, and explore the theory, tools and application behind the genetics involved in these fields while developing critical thinking skills. These lab-based, hands-on courses expose students to the techniques and equipment utilized in scientific laboratories around the world.
Hours Per Week: 20
Ave. Weeks: 70
Contact: Cathie Maloney (617) 984-1654