

Closing the Skills Gap by expanding access to Quality Post-Secondary Training Programs

EXPANDING ACCESS THROUGH LOCAL PARTNERSHIPS AND INNOVATIVE PROGRAMS

PROGRAM: Southeastern Technical Institute Dual Enrollment Partnership

Schools: *Brockton Public Schools, Norton Public Schools, Southeastern Technical Institute*

Contact: *Patricia Illsley, Director of the Technical Institute; 508.230.1374; pillsley@sersd.org*

Dual Enrollment at Southeastern Tech-Institute (STI) allows qualified high school students to enroll in post-secondary courses. STI is collaborating with Brockton and Norton Public Schools in a program starting January 2018. Participating students will receive post-secondary and high school credits for their course work. Students who successfully complete the dual-enrollment program will graduate with a high school diploma from their local high school, complete their Post-Secondary Vocational Certificate and obtain industry-recognized credentials from STI within 6-9 months.

In addition to current offerings in Electrical, Culinary Arts, HVAC, and Cosmetology, STI will be adding two new post-secondary programs in Precision Machine Engineering and Advanced Manufacturing/Welding thanks, in part, to a Skills Capital Grant.

PROGRAM: Assabet Valley's Expansion Plans and Partnerships

Schools: *Assabet Valley Regional Vocational School District, Quinsigamond Comm. College*

Contact: *Ernest Houle, Superintendent-Director; 508.263.9602; ehoule@assabet.org*

Assabet is working strategically with local manufacturers to offer training that will fulfill workforce demands and provide qualified candidates to fill vacant jobs. Assabet's strategic plan for advanced manufacturing training allows for flexible training options as required by the diverse manufacturing employment base within the MetroWest region. Assabet is working closely with companies to ensure meaningful training, apprenticeship opportunities and employer/employee success. An example of this is the specific training that was offered at Assabet for Wyman-Gordon Company employees.

In addition, Assabet has expanded its "Assabet After Dark" Adult Continuing Educational programs to include Advanced Manufacturing: Manufacturing Advancement Center Workforce Innovation Collaborative (MACWIC) Certified training. This expansion offers unemployed, underemployed, and incumbent workers with training that is directly aligned to specific industry needs. MACWIC certification leads to pre-apprentice certification and articulated credit at Quinsigamond Community College which provides a career pathway to earn an associate's degree in Manufacturing Technology.

The \$695,196 of funding received through Capital Equipment Grants is being utilized to update existing equipment in Assabet's Advanced Manufacturing program. These updates will ensure that current industry standards are met as we enhance training for CTE students and expand opportunities for adult training/retraining through certificate and planned post-secondary education.



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PROGRAM: Bristol-Plymouth Post-Secondary School Expansion Plans

Schools: *Bristol-Plymouth Regional, Workforce Investment Board*

Contact: *Glenn Lopes, Program Administrator; 508.823.5151; glopes@bptech.org*

Bristol-Plymouth Regional Technical School is currently in the process of creating a Chapter 74 approved post-secondary Advanced Manufacturing Program to support the needs of employers and industry in southeastern Massachusetts. The program will expand on the current successes of its CAD/CAM program and partnership with the Workforce Investment Board's CNC Training Program. Post-secondary students will be trained by experienced instructors to operate industry standard lathes and Computer Numerical Control (CNC) machines.

PROGRAM: Diman Regional Advanced Manufacturing/Post-Secondary Expansion Plans

Schools: *Greater Fall River Vocational School District, Bristol County Workforce Inv. Board*

Contact: *Thomas Aubin, Supt.-Director; 508.678.2891, ext. 1920; taubin@dimanregional.org*

As recipients of a \$495,000 Skills Capital Grant Award during the fall of 2017, Diman has applied to the Department of Elementary and Secondary Education to expand its post-secondary offerings through the creation of a Chapter 74 Advanced Manufacturing Program. This proposed expansion includes an amalgam of the Machine Tool Technology and Drafting Programs and corresponds with the partnership that currently exists between Diman and the Bristol County Workforce Investment Board. Program curriculum will include Metrology, Additive Manufacturing, CNC milling and turning, SolidWorks 3D Design as well as Computer Aided Manufacturing (CAM). Students attending this program will obtain a certification from Stratasys in Associate Level Additive Manufacturing, leading to higher wage employment.

PROGRAM: Essex Technical High School

Schools: *Essex North Shore Agricultural & Technical School, North Shore Community College, North Shore Workforce Investment Board, Northeast Advanced Mfg. Consortium*

Contact: *Heidi Riccio, Ed.D., CTE Director; 978.304.4668; hriccio@essextech.net*

Essex Technical High School (ETHS) currently offers a full-time secondary program for high school students as well as adult education learning through a partnership with the Northeast Advanced Manufacturing Consortium. Working closely with the North Shore Workforce Investment Board (NSWIB) and North Shore Community College, ETHS offers entry-level training for 18–29 year olds who are underemployed, unemployed, or displaced. The school also conducts two programs for traditional adult learners in MasterCam and Foundations of Machining.

In 2014, ETHS opened its doors as a new regional vocational school district and partnered with Compumachine to create an advanced manufacturing workplace simulated learning environment which provides a seamless transition into employment for program completers with more than \$2 million in technical equipment. Since then, ETHS has received over \$1 million in competitive grant funds, most recently, a \$495,000 equipment grant from Governor Baker's Massachusetts Capital Skills program to enhance advanced manufacturing by including Engineering and Automation.

ETHS plans to expand its post-secondary options as the local labor market demand is high and the NSWIB considers this industry to be one of their priorities when writing its regional plan.



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PROGRAM: Greater New Bedford Post-Secondary Expansion Plans

School: *Greater New Bedford Regional Vocational Technical High School*

Contact: *Rick Quintin, Adult Education Director, 508.998.3321; rquintin@gnbvt.edu*

GNB Voc-Tech received a \$495,000 Skills Capital Grant Award to support our Machine Technology Program (Winter 2016). The program will be based on the 2014 Massachusetts Department of Elementary and Secondary Education's Vocational Technical Education Framework for Machine Tool Technology (VMACH). The framework includes the knowledge and skills that prepare students for careers in the manufacturing fields. Students will be provided with instructional and learning experiences that address safety; technical knowledge; embedded academics; employability and career readiness; management and entrepreneurship; and technology literacy. Students will operate a large variety of industry-ready machine shop equipment such as engine lathes, vertical and horizontal milling machines, drill presses, and various types of grinding machines. Students will learn to program, set-up, and operate computerized milling machines; lathes; and measuring machines as well as EDM machining.

Upon completion of the program, graduates will have entry-level skills that are needed to join the workforce or pursue post-secondary training. They may begin as apprentice machinists or in areas of computerized equipment and electronic discharge machinery. Graduates will have the opportunity to advance into the setting up and programming of Computer Numerical Control (CNC) machines, Computerized Numerical Control (CNC) lathes, and electrical discharge ram and computerized wire machines. They may also advance into the Computer Aided Drawing/Computer Aided Manufacturing (CAD/CAM) areas.

PROGRAM: Advanced Manufacturing Partnership

Schools: *Greater Lawrence Technical School District, Northern Essex Community College*

Contact: *Liz Bennett, Director of Grants, Community & Workforce Development
978.686.0194, ext. 1010; ebennett@qlts.net*

Four years ago, Greater Lawrence Technical School received a grant award in the amount of \$1 million from the Department of Housing and Economic Development to start an advanced manufacturing machine program. As a result, Greater Lawrence is able to support manufacturing companies throughout the Merrimack Valley through our cooperative education program. This program also offers students the ability to earn concurrent credits through Northern Essex Community College towards an Associate's Degree in Advanced Manufacturing. In order to continue to support our students, Greater Lawrence plans to offer post graduate programs in advanced manufacturing which will also lead to an Associate's Degree. Plans also include the start-up of an advanced manufacturing program in metal fabrication. These programs will lead to apprenticeship opportunities.



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PROGRAM: Minuteman High School Advanced Manufacturing Program

Schools: *Minuteman High School, UMass Lowell*

Contact: *Edward Bouquillon, Ph.D., Supt.-Dir.; 781.861.6500, ext. 7301; ebouquillon@minuteman.org*

With the help of nearly \$1 million in state grants, Minuteman High School in Lexington launched a new four-year Advanced Manufacturing program for high school students this fall.

The new program, developed with the assistance of a business-led program advisory committee, will build skills in high school students and adults interested in filling high-wage, high-demand jobs in the advanced manufacturing field in the region immediately west of Boston.

Minuteman secured two Massachusetts Skills Capital Grants totaling \$995,000 to equip the program with eleven industry-standard Haas lathes and mini mills, fifteen training simulators, advanced measurement equipment for quality control, and several 3-D printers to teach additive manufacturing.

Minuteman is working to develop an articulation agreement with the UMass Lowell College of Engineering to enable students to earn at least six college credits by completing the Advanced Manufacturing program. Minuteman is also planning to offer Advanced Manufacturing as a post-secondary program for high school graduates.

PROGRAM: Upper Cape Cod Regional Post-Secondary Expansion Plans

Schools: *Upper Cape Cod Regional Vocational Technical High School, UMass Stockbridge*

Contact: *Robert Dutch, Ed.D., Superintendent; 508.759.7711; bdutch@uppercapetech.org*

Upper Cape Tech was the recipient of a \$300,000 Skills Capital grant which provided resources to establish a new program in Heating, Ventilation, and Air Conditioning. The impetus for this new program was based upon feedback from the Cape and Islands Workforce Development Board and local contractors. As a result of this, in addition to establishing a 9—12 program, Upper Cape Tech will be adding a post-secondary HVAC program with support from the CIWDB and local HVAC contractors who've agreed to hire and sponsor workers looking to enter the field.

Upper Cape Tech, in addition to currently offering a post-secondary program in Practical Nursing and the planned HVAC program, will be adding additional post-secondary programs in Electrical, Plumbing, Culinary Arts, and Cosmetology.

Additionally, Upper Cape Tech in partnership with The Stockbridge School of Agriculture is planning a post-secondary program in Horticulture. The program will be offered on the campus of Upper Cape Tech ultimately leading to an Associate Degree from UMASS Stockbridge.

The ultimate goal of each of these post-secondary programs is to expand the capacity to fill the significant labor shortages on Cape Cod and provide a trained, skilled workforce for the established construction and service industries looking to maintain and grow their businesses.



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PROGRAM: Westfield Technical Academy Post-Secondary Expansion Plans

School: *Westfield Public Schools*

Contact: *Joseph Langone, Principal; 413.572.6533, ext. 60014; j.langone@schoolsofwestfield.org*

The Westfield Technical Academy was founded over 100 years ago. Since its inception, the Manufacturing Technology Department has been an important partner in training students for employment among the many manufacturing companies in the Greater Westfield area and the Pioneer Valley. Today, advanced manufacturing jobs represent 32% of Greater Westfield's total employment. Currently, the Westfield Technical Academy is considering establishing a Chapter 74 approved post-secondary Advanced Manufacturing Program which emphasizes high quality instruction that responds directly to the needs of local employers. The Westfield Technical Academy Manufacturing Technology Department was a 2016 recipient of a \$250,000 Capital Skills Grant which provided the resources necessary to replace and upgrade a significant portion of the program's advanced manufacturing equipment.

PROGRAM: Whittier Regional Post-Secondary Expansion Plans

School: *Whittier Regional Vocational Technical High School*

Contact: *Maureen Lynch, Superintendent; 978.373.4101, ext.226; mlynch@whittier.tec.ma.us*

In the spring of 2016, Whittier Regional Vocational Technical High School received a \$495,000 Skills Capital grant, which enabled the school to transform its former machine and tool program into a modern Advanced Manufacturing program. The foundation of the grant supported the renovation of the 6,868 square foot modern manufacturing facility, to include a variety of state of the art equipment as a place where students will learn the 21st century, computer-driven machining technology needed to excel in today's advanced manufacturing careers.

Whittier plans to open a post-secondary program designed to provide a pathway for graduating seniors and members of eleven district cities and towns to attain the academic and technical skills needed for a career focus in Advanced Manufacturing. The goal of Whittier Tech's program will be to provide high quality, career focused instruction to prepare students to meet the needs of and support the competitive stature of our local Advanced Manufacturing industry by advancing the skills of their future workers. Graduates will be prepared to enter and support the Commonwealth's strong and growing Advanced Manufacturing industry.



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PROGRAM: Nashoba Regional Post-Secondary Expansion Plans

School: *Nashoba Valley Technical School District*

Contact: *Denise Pigeon, Superintendent; 978.692.4711, ext. 11101; dpigeon@nashobatech.net*

In the spring of 2016, the Nashoba Valley Technical School District received a Workforce Skills Capital grant in the amount of \$500,000. This enabled us to purchase state of the art equipment designed to train students to become NIMS certified CNC technicians, making them highly marketable in the advanced manufacturing field.

We plan to open a post-secondary program designed to target the graduating senior who does not have a solid career focus. Students from our sending districts can begin our program in the spring of their senior year with introductory courses, and can continue in the fall with the goal of earning their NIMS credentials and college credits by the following spring. Our hope is to send these students directly into the workforce into high demand, high wage jobs, thus building the workforce pipeline and strengthening the economic fabric of the region.



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AGENDA

Thursday, December 14, 2017

MASTER OF CEREMONIES

Luis G. Lopes, Superintendent
Southeastern Regional School District

9:45 a.m. - NETWORKING/TOURS/COFFEE & PASTRIES

Student ambassadors will lead tours of the school.
All guests will be welcomed at the STI Technical Institute Entrance.

10:15 a.m. – MAKERSPACE

Guests will be able to tour this year's tiny house project currently under construction in our MakerSpace.
Students from Construction, Cabinetmaking, Plumbing, Electrical, HVAC, and Business Marketing are all working together to construct a 256 sq. foot tiny off-grid home designed on a computer featuring walls and structural components printed on a CNC Router purchased through the Skills Capital Grant.

FEATURED SPEAKERS

David Ferreira,
Executive Director, Massachusetts Association of Vocational Administrators

Cora Boyle,
Grade 11 Southeastern student, Precision Machining

Governor Charlie Baker,
72nd Governor of the Commonwealth of Massachusetts

Michael Tamasi,
President and CEO, AccuRounds, Inc.

Jim Peyser,
Secretary of Education

Rosalin Acosta,
Labor and Workforce Development Secretary

