

# MONTY TECH ANNUAL REPORT 2018



MONTACHUSETT REGIONAL VOCATIONAL  
TECHNICAL SCHOOL

1050 Westminster Street, Fitchburg, MA 01420

[www.montytech.net](http://www.montytech.net)



Schools across North Central Massachusetts are filled with eager students, talented educators and supportive administrators, all working together toward common goals: student achievement and academic excellence. While students and teachers at Monty Tech work together toward these goals daily, they also strive to achieve vocational-technical proficiency, assuring our graduates have a choice when they graduate: to pursue college or a career or both. As college costs continue to rise, and the need for qualified tradespeople is expanding across our region, having this choice is becoming increasingly important. Preparing our students to make this choice is a privilege, and so we remain committed to providing the best possible educational programs for our students.

Monty Tech academic programs are effectively serving students at all levels, as indicated on the most recent MCAS scores: 95% of students earned Advanced or Proficient scores in ELA, 85% earned Advanced or Proficient scores in mathematics, and 82% earned Advanced or Proficient scores in Biology. Student performance on this exam met or exceeded state-determined targets in every subgroup. Teachers continue to refine curriculum, incorporate new instructional strategies, and challenge every student to reach new levels, and we couldn't be prouder of the results.

School leaders also closely monitor each of the school's 21 vocational programs, to ensure they align with current industry standards, and that they continue to prepare students for entry-level careers in their chosen field. Whether it means purchasing new equipment, incorporating new certifications or credentials into the curriculum, or seeking new educational partners, vocational instructors and school leaders work collaboratively to ensure vocational programs at Monty Tech are among the most comprehensive, current, and innovative programs across the Commonwealth.

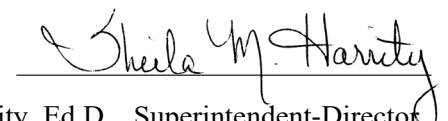
The 2017-2018 school year was marked by countless reasons to celebrate our students and staff, who consistently demonstrate vocational excellence and innovation.

Students and instructors in our Carpentry, Electrical, Plumbing, Masonry, HVAC and Property Maintenance, and Cabinetmaking trades completed a two-year long project – a 7,500 sq. ft. building, now home to the school's newest vocational program, Veterinary Science. This project was funded entirely by private sector donations, gifts, local, state and federal grants, and in-kind support in the form of donated materials and labor, and deep discounts on building materials and supplies. School officials raised an unprecedented \$2.6M to support the establishment of the Monty Tech Veterinary Science program - a tremendous accomplishment that reflects the support our community continues to provide our students, faculty and staff.

The Monty Tech Veterinary Clinic is not the only new and exciting opportunity available to our students. The school was recently awarded a \$500,000 Skills Capital Grant, to improve the Engineering Technology, Electrical, and CAD/Drafting & Design programs. This generous grant has allowed instructors to create two innovative learning spaces, intended to replicate working and learning environments maintained by industry leaders in advanced manufacturing and automation. Using this new equipment, students will prepare to become manufacturing technicians, robotics technicians, automation technicians, moldmakers, and CNC machinists at local corporations, filling the existing skills gap across these industries.

While students and instructors across the school continue to demonstrate creativity, innovation, and leadership, school leaders continue to keep an eye on emerging trends in vocational education. As we prepare these talented students to make important life choices, we are reminded that in the end, the choice is theirs to make: college or career or both. It is our job to support their aspirations and to educate and train them to achieve at the highest possible level. On behalf of our talented educators and administrators, who remain focused on delivering the highest quality academic and vocational-technical education possible, I am delighted to present the District's 2017-2018 annual report to you, providing a snapshot of the wonderful experiences happening on a day-to-day basis here at Monty Tech.

Respectfully submitted,



Sheila M. Harrity, Ed.D., Superintendent-Director

## Our Mission

Every student will graduate from Montachusett Regional Vocational Technical School with the skills, knowledge, and abilities to be a productive and effective member of an ever-changing society.

## Our District

Montachusett Regional Vocational Technical School is a four-year career and technical high school serving the member towns of:

Ashburnham  
Ashby  
Athol  
Barre  
Fitchburg  
Gardner

Harvard  
Holden  
Hubbardston  
Lunenburg  
Petersham  
Phillipston

Princeton  
Royalston  
Sterling  
Templeton  
Westminster  
Winchendon

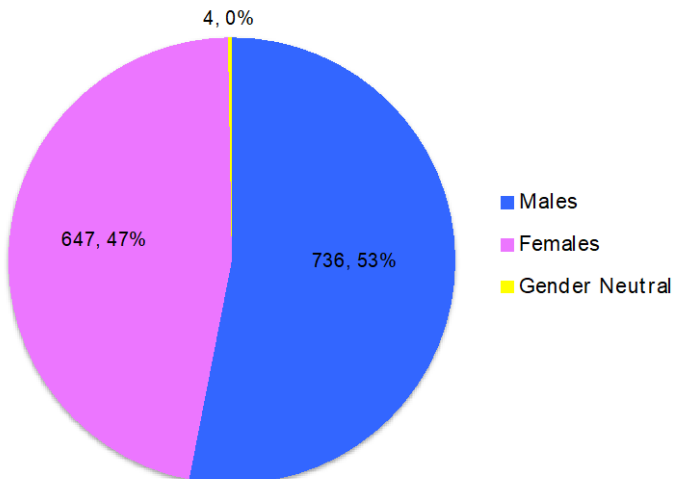
## Leadership

The leadership team at Montachusett Regional Vocational Technical School is comprised of ten talented administrators whose varied educational backgrounds, professional experiences, and areas of expertise contribute to the success of the school. Working collaboratively, and under the direction of the Superintendent and Principal, the team has transformed the school into one of the most sought-after high schools in North Central Massachusetts.

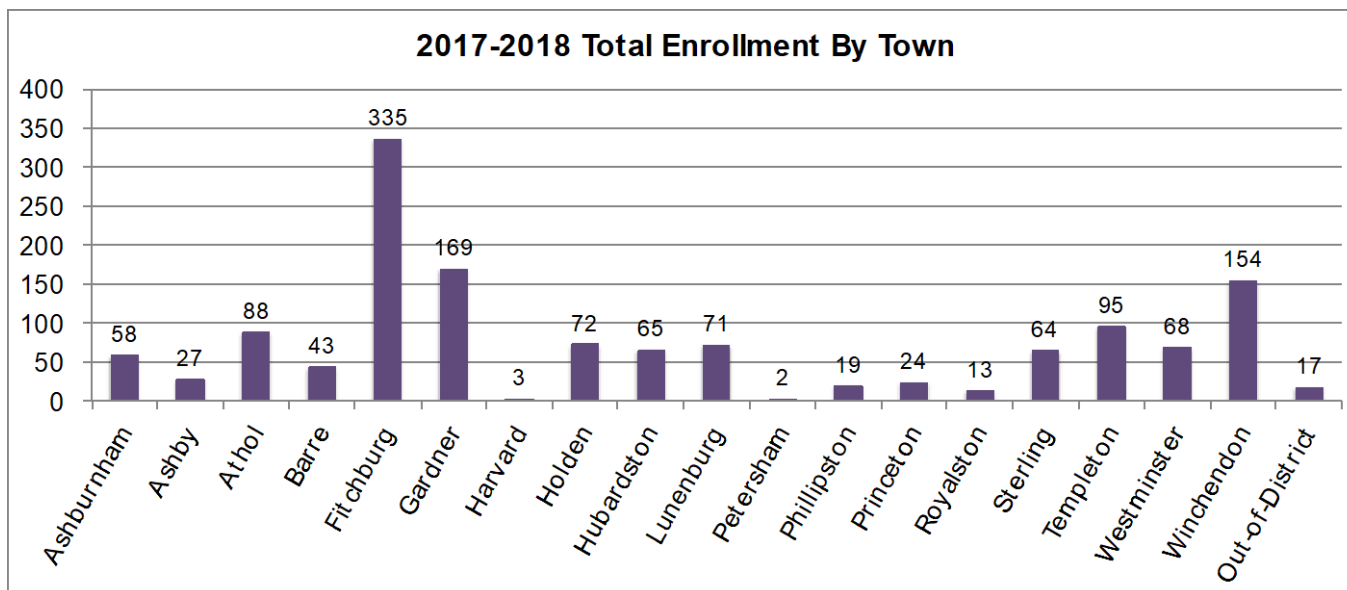
*Sheila M. Harrity, Superintendent-  
Director Tom Browne, Principal  
Dayana Carlson, Assistant  
Principal Tammy Crockett,  
Business Manager Pamela  
Pothier, Director of Technology*

*Christina Favreau, Director of Academic Programs Jim  
Hachey, Director of Vocational Programs Michael  
Gormley, Director of Facilities  
Katy Whitaker, Development Coordinator  
Victoria Zarozinski, Director of Student Support Services*

## Enrollment



On June 1, 2017, student enrollment at Monty Tech included 1,387 students in grades nine through twelve, representing each of the district's eighteen sending communities. Each class of students is comprised of a relatively equal balance of male vs. female students, and each student attending Monty Tech has elected to do so, prepared to explore an interest in one of the school's twenty-one rigorous vocational-technical programs. While the school currently offers only five programs non-traditional for male students, and twelve programs non-traditional for female students, we are proud to have a student population that is well-balanced by gender and a variety of academic interests and achievements.



Throughout 2017-2018, Monty Tech offered a variety of opportunities for students, parents, and community members to learn about and visit the school. In October 2017, approximately 700 district eighth graders participated in the annual “Tour Day” event. Students toured our twenty vocational- technical areas and learned about the school’s challenging academic offerings and exciting athletic and extracurricular programs. Career Awareness Night offered interested students the opportunity to return in the evening with their family members to further explore the facilities and speak with staff members.

The Vocational Interest Program (V.I.P.) offers area seventh and eighth grade students the chance to visit Monty Tech after school and participate in hands-on learning experiences across a variety of vocational/technical areas. The program continued to attract a large number of students during the 2017-2018 school year, serving approximately 600 area students.

**Class of 2018 Awards**

Members of the Class of 2018 were awarded approximately \$97,000 in scholarships. The Monty Tech Foundation generously provided \$37,250 in scholarships to graduating seniors, ranging in amounts of \$100 to \$2,600. The Foundation also awarded \$3,240 to the Practical Nursing graduates. Once again, local and state organizations, as well as generous individuals, continue to recognize the ability and potential of Monty Tech graduates in the form of financial donations. The School Committee, administration, faculty, and graduates themselves, are grateful for this support.

Articulation Agreements with local colleges also play an important role in helping reduce the cost of higher education. Qualified Monty Tech students are eligible to receive college credits through a number of articulation agreements with public and private colleges across the country. Approximately 57% of the graduating class of 2018 reported plans to enroll at a 4-year college/university upon graduation. By earning college credits while still in high school, these students will save both time and money as they pursue advanced educational programs.

**Financial Report**

A great deal of effort was put forth by the School Committee, administration, and staff to develop a cost- effective budget for the fiscal year 2017-2018. The final fiscal year 2017-2018 Educational Plan totaled \$26,895,680, which represents a 2.0% increase over the 2016-2017 Educational Plan. The District’s FY17 budget exceeds the minimum spending required by Massachusetts General Law Chapter 70 by only \$41,379 or .2%.

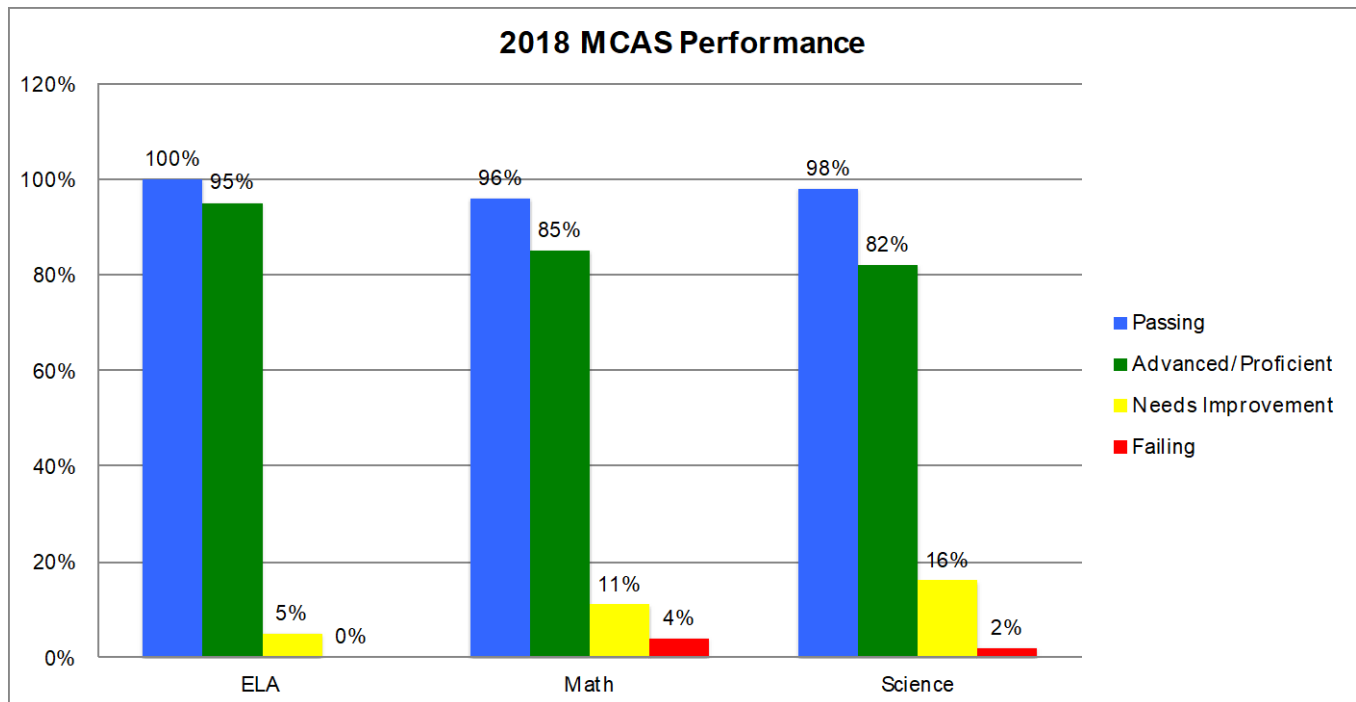
The District was audited in November 2018 as part of the yearly financial audit by the accounting firm of Melanson, Heath and Co. from Greenfield, MA, and received a very good report.

## Grants and Contracts

Monty Tech continues to pursue grant funding on an annual basis. These funds help provide many educational and social services to the student population. For fiscal year 2018, state and federal grant sources provided the school with \$991,611. Programs funded by these grants include: Essential Health Services, Social Intervention and Mediation, Improving Teacher Quality, Special Education Services and Program Improvement, Title I Support, Perkins Occupational Education, and Marine Corp Junior Reserve Officer Training. The District also received more than \$508,000 in competitive grants, including a Skills Capital Grant for \$495,000 to purchase equipment for the Electrical, Engineering and CAD/Drafting and Design programs, and a grant from the Community Foundation of North Central Massachusetts in the amount of \$13,919 to expand the school's continuing education program to include an Oil Burner Technician training program. Using these allocation and competitive funds, the school was able to purchase a variety of instructional technology, equipment, and supplies to enhance the learning experience across both academic and vocational programs.

## Academic Achievement

In 2017-2018, students at Montachusett Regional Vocational Technical School continued to demonstrate high academic achievement, earning commendable MCAS scores in English Language Arts, Mathematics and Biology. For Spring 2018, Monty Tech's passing rate on the English Language Arts was 100%, Mathematics 96%, Biology 98%.



Monty Tech is committed to providing students with rigorous STEM learning opportunities, and so in recent years, the curriculum has been expanded to include Advanced Placement Programs (two ELA courses, two mathematics courses, two science courses, and one computer science course) and teachers have participated in meaningful, high-quality professional development which will enable us to roll-out two Project Lead the Way biomedical courses in the 2018-2019 school year.

The school is in its 6th year of administering Advanced Placement exams, and students enrolled in AP courses continue to improve their performance. In 2017-2018, Monty Tech had forty-six students achieve qualifying scores, earning advanced standing and/or college credit. More than half of the students who tested in the following subjects received qualifying scores: AP Computer Science Principles (66%), AP Chemistry (53%), and AP BC Calculus (100%). In addition, the AP Chemistry program experienced the most growth in terms of qualifying score as their passing rate increased by 44.7% from 2017 to 2018.

<b>AP Exam Results, 5-Year Review</b>						
	<b>2012-2013</b>	<b>2013-2014</b>	<b>2014-2015</b>	<b>2015-2016</b>	<b>2016-2017</b>	<b>2017-2018</b>
Total AP Students	69	57	89	145	120	135
Number of AP Exams	69	62	116	187	148	133
AP Students with Qualifying Scores	36.2%	57.9%	52.8%	26.9%	44.2%	48.9%
Qualifying Scores (State)	72.6%	72.2%	70.9%	70.5%	69.7%	69.9%
Qualifying Scores (Global)	60.9%	61.3%	60.7%	60.3%	60.3%	61.3%
Courses Offered	2	2	3	5	7	7

*Data provided by College Board, July 2018*

### **Vocational Projects in the District Communities**

Unlike students in traditional, comprehensive high schools, students at Monty Tech are asked to put their education into practice on a daily basis. Students across the twenty different vocational-technical education programs are building homes, reconstructing damaged properties, repairing service vehicles, making walkways more accessible, and performing countless community services.

The 2017-2018 school year was a busy one for our vocational educators, as each trade aimed to provide practical, hands-on learning experiences for our students, while helping to improve each of the eighteen member communities.

**Auto Body Collision Repair Technology:** The Monty Tech Auto Body shop benefited from new instructional equipment this year. Eight new welding stations were installed, allowing instructors to expand the welding curriculum in an effort to better align with industry standards. New textbooks and a new nitrogen welder were critical as instructors worked to implement a more extensive plastic welding program. In addition to the 100+ community service projects completed last year, students and instructors repaired a trailer for the Westminster Police and clear coated the 9/11 Memorial for the Fitchburg Fire Department. Seniors received their EPA 6 H Certificate, I-Car Pro Level 1 in Refinishing and Non-Structural Repair. And, for the fourth consecutive year, Monty Tech Auto Body students won the coveted World of Wheels Pedal car competition. Seven students earned co-op placements, and one Senior traveled to Louisville, KY, competing in the SkillsUSA national competition in June 2018. Instructors are incredibly proud of his performance, as he was won at the national level and has qualified to compete in the Collision Repair World Competition in Russia, scheduled for summer 2019. (Total student enrollment: 65)

**Automotive Technology:** As in past years, the Monty Tech Automotive Technology program continues to service a variety of vehicles. Over 400 vehicles were serviced and repaired during the 2017-2018 school year, including vehicles brought in by faculty, staff, public, school and students. Students performed extensive repairs, to include head gaskets, timing belts, and various other technical repairs. Thanks for funding provided by the school's Perkins grant, every student enrolled in the program earned at least one industry-recognized certification, and Senior students were able to participate in the widely renown ASE Testing. A total of eight students earned co-op placements throughout the school year, which is a testament to the strength of the program, that continues to be the areas premier workforce pipeline for area automotive dealerships and businesses. (Total student enrollment: 70)

**Business Technology:** Monty Tech's Business Technology program continues to benefit from a unique partnership with Workers Credit Union. The opportunity to participate in teller training and financial literacy workshops has been met with great enthusiasm from students, who completed 9 modules and earned a financial literacy certificate. As a member of the Massachusetts Schools Bank Association through the Federal Reserve Bank of Boston, Monty Tech students are able to compete in the Banking Bowl and Marketing Competitions. Monty Tech Business Technology instructors, in collaboration with their post-secondary colleagues, continue to refine and develop new articulation agreements. These agreements, with Mount Wachusett Community College and New England Institute of Technology, will provide qualified students with college credits at no cost to the student. Students are eligible to receive 18 credits from Mount Wachusett Community College and 16 credits from New England Institute of Technology. Opportunities to demonstrate customer service, cash handling, and accounting skills are ever-present as the Business Technology students successfully operate an in-house retail location, The Gear House School Store, and the Monty Tech Greenhouse. Seven Seniors and nine Juniors were out on co-op placements during the 2017-2018 school year. (Total student enrollment: 68)

Cabinetmaking: Students and instructors in the school's Cabinetmaking program spent a majority of their time during the 2017-2018 school year manufacturing, assembling and installing classroom cabinets, clinic casework, and solid surface countertops in the school's new Veterinary Science training center. Sophomore students crafted 400 maple bread boards with a purple heart accent strip for guests at the 2018 Superintendent's Dinner. Upperclassmen fabricated two credenzas and a bench for Mount Wachusett Community College. These unique pieces were made from the reclaimed maple trees that were cut from the site of their new science wing. Students and instructors completed an additional 40+ projects throughout the school and surrounding communities, to include: three canopy gutter enclosures for the Veterinary Center, a wall of upper cabinets and a computer station for the Electrical shop, two base cabinets and maple doors for Machine Technology, and 36 cosmetology nail tables for Cosmetology. A total of 14 students (9 seniors and 5 juniors) earned co-op placements. (Total student enrollment: 70)

CAD/Drafting & Design: The Monty Tech CAD/Drafting & Design program is increasingly busy each year with outside projects, completing miscellaneous signs and banners for community sports events, craft fairs, and non-profit events. Students also played an instrumental role in 2018 Superintendent's Dinner, designing the layout and décor for this annual fundraising event, and ended the year by designing and installing signage throughout the building for the 2018 graduation exercises. A total of six students were awarded co-op placements, working and learning in area businesses. Four students advanced to the SkillsUSA states competition, representing the program well. Over the course of the 2017-2018 school year, CAD/Drafting & Design students achieved over 100 industry-recognized certifications in AutoCAD, Inventor, Revit, and Solidworks. Program instructors were instrumental in the success of the school's 2018 Skills Capital Grant application, and, as a result, the school was awarded \$500,000. A portion of these funds will be used to establish a fabrication lab for 3D printing, 3D scanning, Injection molding, CNC work, and Laser cutting. (Total student enrollment: 62)

Cosmetology: The Monty Tech Cosmetology program welcomed a new instructor for the 2017-2018 school year, Stephanie Delphia, whose considerable experience in the field, and business acumen as a salon owner, brought fresh perspective and valuable lessons to the students enrolled in the program. Students and instructors in the program provided numerous community services, including basic manicures to the residents at Gardner Heywood Wakefield Assisted Living, and services to parents who work with disadvantaged children, and numerous walk-in clients. Senior students held three staff appreciation nights, raising funds so that they could travel to New York's International Hair show. Eleven seniors earned co-op placements - the largest number of Cosmetology students placed in the program's history. Finally, for the second consecutive year, every senior successfully passed the Massachusetts Cosmetology State Boards, earning licenses to practice. (Total student enrollment: 87)

Culinary Arts: Monty Tech Culinary Arts students and instructors are always busy with the daily operation of the Mountain Room Restaurant, which is open for lunch from 11:30 am to 1:00 pm Monday through Friday. In addition to operating a full-service restaurant and bakery, serving 90-120 patrons daily, culinary students showcase their talents throughout the year, providing outstanding service at events that include the following: two Program Advisory Committee dinner meetings, four Monty Tech Foundation breakfasts, Monty Tech's Retirees holiday luncheon, a graduation reception, the Women in Technology event, Principal and Counselors' Day, the Monty Tech homecoming dance, MAVA meetings, all School Committee meetings and sub-committee meetings, Gardner AARP luncheon and MHCC volunteer luncheon. Community service opportunities for students are always a highlight, and this year our students prepared meals for Our Father's House, and NEADS events. Students and instructors also prepared and donated pastry and baked goods to the House of Peace and Education in Gardner. The program's greatest undertaking is always the Annual Superintendent's Dinner scholarship fundraiser, during which students work side-by-side with some of the area's finest chefs, preparing a six-course dinner with extensive hors d'oeuvres for more than three hundred guests. Culinary Arts students value industry-recognized credentials, and were proud to earn Allergen Awareness and ServeSafe Certifications. A senior student was recognized by the Massachusetts Restaurant Association with a \$10,000 Scholarship to Johnson & Wales University. (Total student enrollment: 95)

Dental Assisting: A critical component of the Monty Tech Dental Assisting curriculum is the preparation for the Dental Assisting National Board certification exams. Every sophomore passed the DANB Infection Control exam, and every senior passed the DANB Radiology exam. In addition, all senior students successfully completed two full-mouth x-rays on live patients during the affiliation experience, meeting a state requirement for program completion. Three students (one senior and two juniors) earned co-op placements, while the remaining 22 students participated in affiliation/externship experiences in area dental clinics and offices. Students and instructors welcomed Community

Health Connections, a school-based dental hygiene program, and provided dental services to more than 60 students in need. Monty Tech Dental Assisting students were given valuable hands-on experience, assisting the staff from CHC during each dental procedure performed. Junior students provided dental education to students at Winchendon Memorial Elementary School and Meetinghouse Elementary School in Westminster, and two sophomore students delivered a presentation on oral care to community members at Gardner Golden Age. (Total student enrollment: 54)

Early Childhood Education: Students and instructors in the Monty Tech Early Childhood Education program are committed to community service activities, and the 2017-2018 school year was no exception. In addition to studying early education and care concepts, students worked collaboratively to raise funds for Lucy's Love Bus, an agency that provided grants for children with cancer that are not covered by health insurance; helped various clubs raise funds for SkillsUSA Change for Children; provided gifts for a child through Kylee's Kare Kits; and provided supplies to Department of Children & Families, in support of foster families taking in infants in emergency situations. Two outstanding program graduates earned their CDA (Child Development Associate) credential, and the Monty Tech Child Care Center continues to operate at full capacity with a waiting list, providing meaningful hands-on learning opportunities for all students in the Early Childhood Education program. (Total student enrollment: 60)

Electrical: Throughout 2017-2018, students and instructors in the Monty Tech Electrical program completed all wiring the school's new Veterinary Science Training Center. This included all underground raceway installations, as well as installing conduits within the walls for all the wiring throughout the building. Program graduates are entering the trade at a prime time, as the electrical contracting business continues to reach new heights. To that end, program instructors worked diligently to place as many students on Co-op as possible, preparing them for a seamless transition from school to work. The program continued to support the building maintenance department by repairing numerous small electrical issues throughout the building. Program instructor, Dean Lepkowski, worked closely with several program advisory committee members to develop a proposal for the school's 2018 Skills Capital Grant application. Their efforts resulted in an outstanding grant application and an award of \$500,000, a portion of which will be used to establish a state-of-the-art A.R.M. (Automation, Robotics, and Mechatronics) Lab, responding to regional workforce needs, student interest, and the critical shortage of high-quality electronic system control and fabrication training programs in the area. (Total student enrollment: 82)

Engineering Technology: The Engineering Technology program at Monty Tech is a rigorous program, infused with nationally certified curriculum provided by Project Lead the Way, and countless hands-on learning opportunities that provide students with opportunities to demonstrate creativity, make connections with prior learning, and earn college credits. During the 2017-2018 school year, 13 sophomore students took the Introduction to Engineering end-of-course assessment, and performed quite well. Seven students earned college credits, with scores of Advanced or Proficient. Eight juniors took the Principles of Engineering and Computer Integrated Manufacturing assessments, and six earned college credits in both areas. In addition, all freshmen completed the OSHA 10-hour General Industry training. Engineering program instructors were pivotal in determining the equipment and materials that should be included in the school's 2018 Skills Capital Grant application, and, as a result, the school was awarded \$500,000. A portion of these funds will be used to purchase a robotic arm, 3D printers and related software, which will benefit the program for years to come. (Total student enrollment: 41)

Graphic Communications: Throughout the 2017-2018 school year, the students in Monty Tech's Graphic Communications shop produced numerous projects for our district cities and towns, and a variety of non-profit organizations in the district. In total, students successfully produced approximately 400 orders, saving cities, towns and non-profit organizations more than \$200,000. The program welcomed 24 freshmen students to the shop, one of whom earned a gold medal at the SkillsUSA district competition. The program was enhanced with the addition of new equipment, which included a popular wide format printer. Of the 21 talented seniors who graduated from the Graphic Communication program, 18 were accepted into colleges/universities and three chose to enter the workforce in related careers. (Total student enrollment: 87)

Health Occupations: The Health Occupations program at Monty Tech continues to educate a large number of students, providing a rigorous education grounded in current medical knowledge and practice. A unique collaboration with Mount Wachusett Community College enables Senior students to participate in an Emergency Medical Technician training program, earning eight college credits at no cost; 11 Seniors completed the EMT Course in 2017-2018. In addition, 15 seniors earned co-op placements, and 24 seniors received their clinical medical assistant certificate. Every junior enrolled in the Health Occupations program earned CPR certification, as well as a certificate in dementia care from the



Alzheimer's Association. Students and instructors in the Health Occupations program are particularly invested in community service, and as a result, students hand-made veteran's day cards and sent them to Bedford VA Hospital; bought gifts and clothing for the Fitchburg Community Christmas party; hosted an American Red Cross Blood drive; and held a "Baby Shower" benefiting Battered Women's Resources, Inc. (Total student enrollment: 107)

House Carpentry: In addition to completing construction of the school's new 7,500 sq. ft. Veterinary Science training center, students and instructors in Monty Tech's House Carpentry program supported a number of community organizations, by building and installing window boxes, picnic tables, and even dugout benches for Quabbin Regional High School's softball field. Students also handcrafted countless adirondack chairs for charitable donations. A total of nine students (five seniors and four juniors) earned co-op placements throughout the school year, while all sophomore students successfully completed the OSHA 10-hour Construction training, which enables the students to work on outside projects and qualifies them for the school's popular co-op program in their junior year of study. (Total student enrollment: 59)

HVAC & Property Maintenance: Students and instructors in the HVAC & Property Maintenance program were pivotal in the completion of the new Veterinary Science training center, installing more than 1,000 feet of combined non-potable water, drain and refrigerant lines throughout the building. Five VRF wall units and 14 VAV modules designed to heat and cool the building were also installed. Students earned National EPA Certification for refrigerant recovery, and a total of 12 students (8 seniors and 4 juniors) were placed in area businesses through the school's popular co-op program. Instructors worked throughout the year with colleagues at partner institution, Mount Wachusett Community College, in an effort to share and align curriculum to a newly proposed post-secondary program at the college, a partnership that would yield benefits to program graduates in the form of articulated credits and/or advanced standing in the post-secondary training program. (Total student enrollment: 58)

Information Technology: The Information Technology program continues to offer students more industry-recognized certificates than any other program at Monty Tech. It is an accomplishment our instructors are so proud of, as these certifications affirm the technical skill proficiency needed for so many entry-level careers in networking and information technology. All Freshmen completed their OSHA 10-hour General Industry training, and completed their VEX Robot Certification. The Sophomores have the opportunity to pass the IC3 Certificate Exam for basic computer hardware, software, and internet knowledge and skills. All Sophomores also passed the Test-out PC Pro Certificate exam and the Cisco IT Essential course for computer repair and maintenance, and the introduction to Networking course. Eight exceptional Sophomores also earned COMPTIA A+ credentials. All Juniors completed the Linux Essentials course, and five passed the CIW Advanced HTML5 & CSS3 Certification exam. All Seniors and one Junior completed the Linux Essentials course, and all Seniors also completed the Python Programming course. Seniors who were not placed in the co-op program were able to participate in the AP Computer Science Principles course, which resulted in four students earning qualifying scores. A total of nine students earned co-op placements, applying their technical skills in area businesses. In total, more than 400 hours of community tech support was completed, which involved hardware and software troubleshooting on desktops, laptops, printers, and mobile devices. (Total student enrollment: 61)

Machine Technology: The 2017-2018 school year brought new technology, curriculum, and a renovated instructional space to the students and instructors in the school's Machine Technology program. As recipients of a \$435,000 Skills Capital Grant, instructors were able to train students in precision measurement, and granted more than 300 certifications to students accordingly. The program also received an additional \$12,000 Gene Haas Scholarship Grant, and used those funds to sponsor four students in advanced training endeavors, and award two college-bound students substantial scholarships. All freshmen received their OSHA 10-hour general industry certification, while 12 upperclassmen earned co-op placements, working and learning in area machine shops. Machine Technology students and instructors also completed a number of outside projects, which included engraving school plaques and cutting key tags for the Fitchburg Police Department. (Total student enrollment: 48)

Masonry: The talents of Monty Tech Masonry students are on display for all to see, with the completion of a beautiful stone veneer on the exterior of the new Veterinary Science training center. In addition, students and instructors poured several concrete pads, installed pavers, and tiled almost every room in the 7,500 sq. ft. clinic. Students also helped to maintain the main campus by replacing four sets of concrete steps at the busy Dukakis Performing Arts Center. Program instructors remain committed to community service, and as a result, worked with students to complete a number of projects in neighboring communities, to include repairing the memorial brick walk at the Winchendon Veterans Cemetery. Students were introduced to the new OSHA silica standard, and the program benefitted from new equipment,

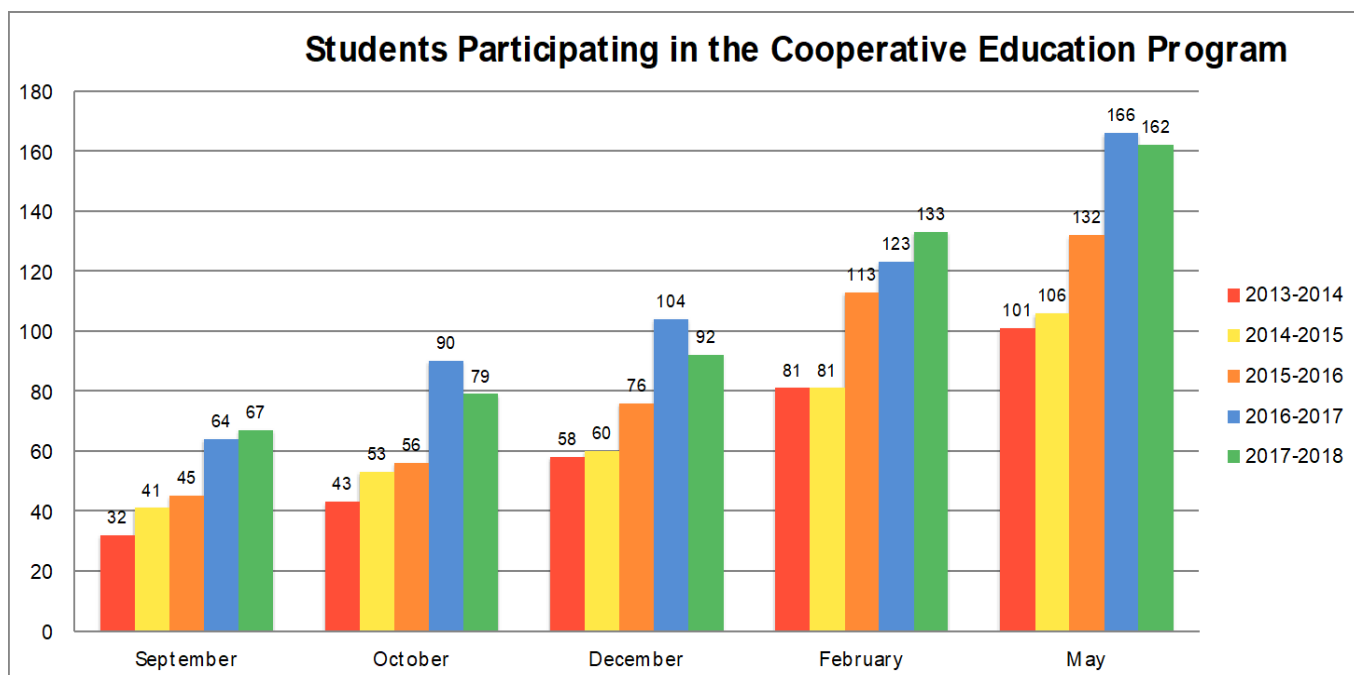
dust free saws and grinders, and continues to operate in compliance with trade regulations. Three students earned co-op placements, and continued to refine their skills working with business partners through the school’s co-op program. (Total student enrollment: 60)

**Plumbing:** The 2017-2018 school year welcomed a new plumbing instructor, Christopher Morrissette, and 18 freshmen to the Plumbing trade. All freshmen successfully completed the OSHA 10-hour General Industry safety training, while the sophomores completed the OSHA 10-hour Construction Training. Seniors also earned the Mega-Press gas piping certification at the Viega training facility in Nashua, NH. Students and instructors worked diligently to complete the Veterinary Science training center, and completed a variety of plumbing repairs throughout the main building. A total of 13 students (nine seniors and four juniors) participated in the school’s popular co-op program. Two outstanding seniors were recognized for their outstanding technical skills, receiving scholarships from the Plumbing, Heating, and Cooling Contractors Association of Massachusetts, and from the Central Mass Plumbing & Gas Inspectors Association, which will be used to continue their education. (Total student enrollment: 71)

**Veterinary Science:** In 2017-2018, Monty Tech launched its 21<sup>st</sup> vocational-technical education program, Veterinary Science. After a very successful exploratory program, 22 students were accepted into the program and are proud to be Monty Tech’s first class of Veterinary Science students. All freshmen completed the OSHA 10-hour healthcare training, and spent the second semester engaged in introductory animal science lessons, as well as a number of valuable field trips to support the new curriculum, with trips to: UMASS Amherst to study Equine Reproduction Medicine, Lilac Hedge Farm and Jordan's Dairy to observe agricultural production facilities in Massachusetts, Feed Commodities International to observe individualized rations being created for dairy farms, and Dakin Humane Society to discuss the industry of animal sheltering, with particular emphasis on the veterinary care required. (Total student enrollment: 22)

**Welding/Metal Fabrication:** The 2017-2018 school year brought new equipment to the students in the school’s Welding/Metal Fabrication program, which enabled instructors to incorporate pipe welding, light gauge material welding and grinding techniques into the curriculum. Numerous projects were completed by talented students, including more than fifty requests for individual projects from community members residing in the school’s sending district. All freshmen students successfully completed the OSHA 10-hour General Industry training, and a total of 11 upperclassmen (eight seniors and three juniors) were placed in area shops, working and learning from trade professionals who support the school’s co-op program. (Total student enrollment: 60)

**Co-operative Education and Student Placement**



The Cooperative Education Program is an extension of the student's technical education that combines classroom instruction with on-the-job-training. The Co-op Program provides students the opportunity to further develop academic, technical and employability skills in an industry work environment. All students are eligible to participate in Co-op Program, provided they satisfy state and school grade, attendance and performance requirements. All Co-op students have completed the OSHA recognized Career Safe online health and safety course.

The Cooperative Education Program is beneficial for both student and employer. For the student, it is a chance to gain on-the-job training that improves both their technical and employability skills. Additionally, making industry connections enhances post-graduate employment opportunities. The Co-op Program allows students to earn while they learn.

Employer benefits include addressing workforce needs in an efficient manner. Coop students provide a pool of temporary and potential full-time employees who are already trained, thus reducing employer training costs. Co-op work hours may be tailored to suit the needs of partnering employers. During school year 2017-2018, approximately 25% of qualified students (Juniors and Seniors) earned Co-op placements, working, learning and applying their technical skills related in area businesses.

### **Student Support Services**

During the 2017-2018 school year, Montachusett Regional Vocational Technical School District provided special services to approximately three hundred students – measuring progress of over two hundred students on Individual Education Plans (IEPs) and just under one hundred students adhering to individualized Section 504 plans. While the Student Support Services (SSS) Department encompasses special education, the department provides support and is available to all Monty Tech students.

The department includes a full-time nursing staff that administers medications, performs state-mandated health screening exams, and provides, when necessary, health information to the special education team for a student's IEP meeting. The department benefits from a full-time school social worker that participates in departmental meetings and assists students who have needs concerning finances, family issues, homelessness, maternity, health issues, and proper food and clothing. The school is also fortunate to have on staff a full-time psychologist, whose role it is to evaluate all students referred for an initial evaluation or who require a three- year re-evaluation. In addition, we have a full-time speech language pathologist, who is available to assist students with disabilities, assess these students and consult with teachers. Our students also have access to the services of a full-time adjustment counselor and part-time school psychologist. All of these individuals are available for scheduled counseling sessions, mental health emergency treatment, medical/mental health re-entry and transition support and services, as well as crisis intervention.

The school's Director of Student Support Services oversees the District's Special Education Program, which is reviewed annually in May, in accordance with regulatory requirements. The comprehensive review and evaluation are done in collaboration with the Parent Advisory Council, and the results of the evaluation are used to improve the special education procedures and programs in place at Montachusett Regional Vocational Technical School.

### **SkillsUSA**

SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. Through the school's association with SkillsUSA, our students develop job skills, leadership and professional skills, as well as provide community service. The 2017-2018 school year was an extraordinary one for our chapter of Skills USA. The students met the challenges of district competitions, performed well at the state level, and prepared for the national conference. They also conducted several community service projects and raised money for various deserving charities. Serving as co-advisors were Michael Forhan, Auto Body Instructor, Anne Marie Cataldo, Early Childhood Education Instructor, and Brad Pelletier, Special Education Instructor. Highlights of the year include:

- In September 2017, twenty-seven students applied and were accepted to form the Monty Tech SkillsUSA Leadership Team. After two leadership training sessions, seven officers were elected.

- In November 2017, twenty students, consisting of chapter officers and Leadership Team members attended the Annual Fall State Leadership Conference, where they participated in workshops and leadership exercises and performed community service at an area YMCA Day Camp.
- The SkillsUSA local competitions took place November 27<sup>th</sup> – December 13<sup>th</sup>, and the students learned on December 15<sup>th</sup> who would advance to the next round of competition.
- In December, the chapter adopted twenty-five children from Kylee’s Kare Kits and provided gifts for these underserved children. Several members of the leadership team assisted wrapping and packaging gifts for the children.
- A total of forty-two medals were captured at the District Competition held in March 2018 at Bay Path Regional Vocational Technical School: sixteen gold, thirteen silver, and thirteen bronze medals were awarded.
- Samantha Collette, a senior in the CAD/Drafting & Design program, was selected to serve on the State Advisory Committee to help aid in the planning of the State Conference.
- Thirty-six district medalists and qualifiers, thirteen local leadership and occupational related event contestants, one state officer, and sixteen voting delegates attended the State Leadership and Skills Conference, held in April 2018 at Blackstone Valley Vocational Technical School. There, five students were awarded gold medals, and earned the right to compete at the very competitive National Leadership & Skills Conference held in late June.
- Thirteen students and five instructors attended the National Leadership & Skills Conference in Louisville, KY in June 2018, where Kayla Gerry, a 2018 graduate of the Health Occupations program, earned a silver medal.

### **Technology**

The 2017-2018 school year brought increased access to technology for all students, through the school’s popular 1:1 Chromebook initiative. Google Cloud Print and numerous printers located throughout the building provide students with options to print or share their work with classroom instructors. Two Chromebook charging stations, located in the cafeteria and library, give an added layer to support to students who may need to charge their devices throughout the day.

An outstanding Instructional Technologist, Ellen Gammel, was hired, bringing expertise across a broad spectrum, to include educational technology, software, and troubleshooting tips. Several members of the school’s leadership team joined Ms. Gammel, traveling to Orlando, FL to attend the annual Future of Education Technology Conference, with the goal of identifying new solutions, technologies, and best practices that will enhance the school’s technology-driven approach to education.

To support the 1:1 Chromebook initiative and other technology needs, Monty Tech successfully completed a number of necessary infrastructure upgrades, using federal e-rate dollars totaling \$109,114.70. The school’s external bandwidth speeds have been increased to 1.5 GB and internal bandwidth to 10GB to better ensure continued connectivity and speeds appropriate with a high-use learning community.

### **Marine Corps JROTC**

The Monty Tech Marine Corps Junior Reserve Officer Training Corps (MCJROTC) had an extraordinary 2017-2018 school year. Perhaps the most noteworthy accomplishment was the cadet corps’ remarkable response to Hurricane Harvey. With the support of the surround communities, the cadets were able to raise almost \$100,000 in cash and materiel for relief efforts. With the assistance of the United States Marine Corps, 56 cadets and 15 adults flew to the Houston area where they spent 7 days working on homes that were damaged by the storm.

The Monty Tech JROTC Cadet Corps was honored to host the Wreaths Across America Convoy with a remembrance ceremony as it made its way down to Arlington National Cemetery.

The Cyber Security Team received national recognition by securing a place to compete in the Air Force Association's National Cyber Security Competition held in Baltimore, MD, for the eighth consecutive year. The competition field began with over 1900 hundred teams battling for just 13 seats, and Monty Tech placed 6<sup>th</sup> in the highly competitive field.

The 2017-2018 Corps of Cadets completed over 10,000 hours of community service, conducting a major food drive with United Way, working side-by-side with the Marine Corps Reserve in a national Toys for Tots campaign, and spending six weekends working with the local Salvation Army helping to raise over \$25,000 for needy families.

During the summer of 2018, our Cadet Cyber Team was asked to support a Cyber STEM camp for the National Marine Corps JROTC program. The Cyber Team coordinated the 8-day camp that focused on defending cyber networks from attacks. The camp also offered an introduction to robotics programming using the VEX Robotics System and computer programming using the CanaKit Raspberry Pi 3's. The camp was attended by 120 students, representing twelve states, and was a wonderful success for all involved.

### *Student Athletics*

The Monty Tech athletic program was proud to provide meaningful extracurricular activities to more than 500 students during the 2017-2018 school year, participating on our freshmen, junior varsity, or varsity teams. Seventeen teams competed in the fall 2017, thirteen during the winter season and 11 represented the school in the spring of 2018.

The varsity football team struggled the first part of the season, but won the two non-playoff games against Gardner and Tyngsboro, ending the season with a 2 – 9 record. The varsity boys soccer team finished the regular season with a 10 – 5 – 2 record, led by Charlie Kelley, with 23 goals and 8 assists on the season. The JV boys soccer team is expected to have a promising future, as the young team finished 7 – 7 – 2. The varsity girls soccer team finished at 5 – 9 – 3, while the junior varsity girls soccer team finished with a record of 7 – 3 – 5. The varsity field hockey team finished the season with a 10 – 7 – 2 record, losing 3-0 to Quaboag in the district tournament. The young freshman/sophomore jv field hockey team ended their season with a 3 – 2 – 4 record. The varsity golf team earned a spot in the district tournament, with a record of 7-7, while the junior varsity team participated in a handful of tournaments and official matches, working on improving their scores. The varsity girls volleyball team had a disappointing year, finishing 3 – 17, but the JV team may be able to help build a stronger program in future years, as they finished with an improved record of 7 – 9. The varsity boys cross country team finished 9 – 3 overall and 6 – 3 in the Colonial Athletic League, while the girls cross country team finished 6 – 4 overall and 3 – 4 in the league.

The boys varsity basketball team qualified for the district tournament, with a record of 13 – 7, losing in a thrilling home game with Marian, 80 – 76. The JV boys basketball team finished at 9 – 10 and looks to send some talented players to the varsity team next. The freshmen boys basketball team finished 5 – 14, winning three of their last four games. The varsity girls basketball team had a very successful campaign, with a regular season finish of 16 – 4. They extended their season, qualifying for the district tournament, where they defeated Tahanto 57 – 33 and Main South 40 – 36, and advanced to the semi-finals, where they played a hard fought game against Maynard, losing 60 – 54. With the core of the team retuning next year, it should be a very interesting season. The JV girls basketball team were 15 – 4 on the season, and expects to send some talented players to the varsity level during the 2018-2019 school year. The freshmen girls basketball team finished with a record of 9 – 7. The Monty Tech wrestling team finished with a record of 7 – 18, but were still able to place second in the Colonial Athletic League. The indoor track and field teams look to improve in the coming years, with a finish from the boys at 1 – 7 and the girls team recorded a 0 – 8 finish. The varsity boys ice hockey team finished 10 – 9 – 1, losing to the Worcester team 4 – 3 in the tournament. The girls ice hockey team continues to improve each year, and after graduating three players, hopes to recruit some new players in the coming school year.

Due to poor field conditions, the varsity baseball team was unable to host a home game, finishing the season with a record of 5 – 15. The JV baseball team finished 1 – 10, and freshman baseball team struggled with a record of 2 – 5. The varsity softball team continues to excel, finishing the regular 16 – 4, and winning the first two games in the district tournament, before losing to Hopedale 11-5 in the finals. The JV girls softball team finished 12 – 3 and should provide

some talented players to future teams. Boys varsity lacrosse finished with a 5 – 13 record, while the JV boys lacrosse team had a solid season, finishing 8 – 5. The varsity girls lacrosse team ended with a 3 – 14 record, while the JV girls lacrosse had 5 – 5 season. Finally, with more than 50 student athletes participating, the boys and girls track and field teams both had a very successful season; the boys finished at 5 – 3, while the girls ended with a record of 4 – 5.

Congratulations to the Outstanding Male and Female athletes for 2017-2018, Nick McDermott and Erica Regan.

### **Monty Tech School of Continuing Education**

The Monty Tech School of Continuing Education continues to update and add courses that emphasize a commitment to excellence by offering affordable, quality, and enjoyable educational experiences. For the Fall of 2017, Monty Tech offered 140 classes with 871 registrations, and during the Spring 2018 semester, there were 114 post-graduate and continuing studies courses, with 671 registrations.

The program is on track to support North Central Massachusetts workforce readiness pipeline with an increase in career and licensure courses. The students earn industry-recognized credentials, and participate in externships to support the hands on learning component. We continue to increase our small business partnerships, and the number and quality of personal enrichment classes - sewing, knitting, acrylic painting and glass fusing, to name a few. Catalog distribution has more than doubled, from 80,000 to 170,000 copies, and the relatively new online registration feature continues to add value to our students and instructors.

Spring 2019 will see an Oil Burner Technician certification prep courses come to fruition. This will provide our community members with a high quality, affordable entry into a viable career pathway. Upon completion of the 120-hour program, students will have the opportunity to sit for the oil burner technician state licensing exam, and begin their work in the oil burner industry.

The continued success and sustainability of an adult education program is based on hiring quality instructors and meeting the needs of the community and supporting workforce development. Our goal in the coming year includes increasing our adult education course offerings, with a continued concentration on career programs. Stay tuned for Pharmacy Technician, Medical Billing and Coding, Manufacturing Boot Camp and Apprenticeship opportunities at the Monty Tech School of Continuing Education.

### **Practical Nursing Program**

The Monty Tech Practical Nursing Program is designed to prepare graduates to practice safely, ethically and in a caring manner for patients who are experiencing common variations in health status in diverse health care settings. On June 28, 2018, a graduating class of 35 students completed the Practical Nursing Program and entered the nursing profession. The class achieved an initial pass rate of 77%, with 27 of the 35 graduates passing the NCLEX-PN exam. Five graduates are waiting to take their NCLEX- PN exam, and three graduates are expected to retake the examination in the coming months.

All of the 2018 graduates are currently employed in the health care profession throughout Massachusetts, and many are working within the eighteen cities and towns of the Monty Tech school district as LPNs in various health care settings, ranging from long term care, sub-acute care to mental health facilities.

The Monty Tech Practical Nursing Program continues to develop the “LPN to BSN Bridge” relationship with Fitchburg State University. Several 2018 graduates are pursuing seats in the LPN to BSN program at FSU and will be continuing their education to the Bachelors in Nursing. Many class applicants cited their attraction to Monty Tech as the opportunity to complete a ten-month accelerated program and then bridge to Fitchburg State University.

Monty Tech Practical Nursing students are now completing patient scenarios in the Sim Lab on a weekly basis in Terms 2 and 3. The Faculty Sim team has implemented National League of Nursing (NLN) patient scenarios consistent with our curriculum frameworks, and have also utilized the Sim lab setting to instruct students in developing nursing skills that they may not be experiencing in the clinical setting. Instructors have successfully developed and implemented a

Maternity Sim lab boot camp where students utilize the new simulation models to simulate the birthing process. Student feedback has been positive regarding these new maternity scenarios, stating it better prepares them for an unexpected outcome during a delivery.

Substance abuse and the mental health setting job opportunities have increased with more funding being provided to combat the opiate crisis. Having a clinical rotation at AdCare Hospital in Worcester, and performing simulation scenarios involving substance abuse clients, has better prepared our graduates to work in a substance abuse clinical setting, as well.

### **Looking Ahead**

While the Montachusett Regional Vocational Technical School District educational community is certainly proud of the achievements of our talented students, faculty, and staff, we continue to have an eye toward the future, always committed to improving our vocational and academic programming, strengthening key partnerships, and maintaining facilities that contribute to student success and achievement. As we look ahead, there are a number of programs and initiatives that we expect will have a positive impact on our school and students for years to come.

Expand science offerings to include new biomedical courses: For several months, school officials worked to launch an exciting new biomedical science program. Using grant funds, a science lab was renovated, transforming it into a biomedical science laboratory, aligned with current industry standards. In addition, one talented instructor, Mr. Dylan Hager, attended four weeks of intensive teacher training (2 weeks during summer 2017 at the University of San Diego, and 2 weeks during the summer of 2018 at the University of Washington). While Mr. Hager spent weeks preparing this exciting new coursework, school officials purchased the supplies and materials necessary to deliver two rigorous Project Lead the Way courses, Human Body Systems and Principles of Biomedical Sciences. These courses, which will be available to students Fall 2018, are expected to engage students in a variety of hands-on learning opportunities in a newly renovated laboratory environment that replicates industry standards. Students will be trained in the safe and effective use of the same tools that professionals in hospitals and laboratories are currently using and will work together to find solutions to real-world problems by analyzing medical histories, reading and interpreting autopsy reports, and understanding basic biology and human physiology.

Celebrate the completion of the school's newest instructional space: For two years, students and instructors in our Carpentry, Electrical, Plumbing, Masonry, HVAC and Property Maintenance, and Cabinetmaking trades worked to complete an incredible project – a 7,500 sq. ft. building, which would become home to the school's newest vocational program, Veterinary Science. With construction of this state-of-the-art facility completed during the summer months, school officials look forward to celebrating the finished product with local and state officials, donors, and community members who helped bring the innovative animal science program to Monty Tech. While the facility will not be open to serve pets until Fall 2019, Monty Tech Veterinary Science students will work and learn in the new space in the 2018-2019 school year.

Expand post-secondary and continuing education opportunities: Montachusett Regional Vocational Technical School is home to a very popular evening program that, in recent years, has expanded to include countless workforce readiness programs. A generous grant provided by the Community Foundation of North Central Massachusetts has enabled school officials to begin developing a new, meaningful workforce training program that will have an immediate and positive impact on regional workforce needs. In 2018-2019, an Oil Burner Technician Certification course will be made available to non-traditional students with an interest in pursuing entry-level careers in HVAC trades. This evening program, the only such course in North Central Massachusetts, will include three industry-recognized certification opportunities and will undoubtedly benefit dislocated workers who have been interested in related careers but unable to participate in the required training, due to lack of offerings or high costs associated with similar training programs.

Expand the school's marketing efforts: A Monty Tech high school experience is one students must choose, and to ensure that every interested student in our sending district has access to information needed to make sound decisions regarding his/her high school experience, it is imperative that the school's marketing efforts are expanded to include a variety of social media platforms. While the school currently hosts an updated website and Facebook page, school officials are exploring adding Twitter and Instagram accounts, in an effort to continue to engage interested students and parents.

**The Monty Tech School Committee**

The Montachusett Regional Vocational Technical School District Committee is comprised of twenty-one dedicated individuals, whose expertise proves invaluable in advising the district's operations, policies, and procedures. Our students continue to benefit from the broad scope of their experiences and varying perspectives, and we are thankful to the following members of the 2017-2018 School Committee for their outstanding service.

Barbara Reynolds, Lunenburg  
*Chair*

Brian J. Walker, Fitchburg  
*Vice Chair*

Diane Swenson, Ashburnham

Peter Capone, Ashby

Toni L. Phillips, Athol

Whitney Marshall, Barre

Claudia Holbert/ Dr. Robert Babineau, Fitchburg

Dr. Ronald Tourigny, Fitchburg

Melanie Weeks, Fitchburg

Eric D. Commodore/ Matthew Vance, Gardner

James S. Boone, Gardner

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James Cournoyer, Holden

Kathleen Airoidi, Hubbardston

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Eric Olson, Phillipston

John P. Mollica, Princeton

Mary C. Barclay, Royalston

Dr. Kenneth I.H. Williams/ William Brassard, Sterling

James M. Gilbert, Templeton

Ross Barber, Westminster

Austin Cyganiewicz, Winchendon

Terri Hillman  
*Secretary*

Norman J. LeBlanc  
*District Treasurer*



Respectfully Submitted By:

Sheila M. Harrity, Ed.D., Superintendent-Director  
December 21, 2018

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