

MONTACHUSETT REGIONAL VOCATIONAL TECHNICAL SCHOOL DISTRICT

ANNUAL REPORT 2020



MONTY TECH

A High School Education For Those Who Want More

1050 Westminster Street
Fitchburg, MA 01420
www.montytech.net

As I reflected on the 2019-2020 school year, and considered what might be included in the 2020 Annual Report, I was reminded of the progress and accomplishments made by our students and staff, during an incredibly challenging time. While each year at Monty Tech is exciting and includes many “firsts”, traditional instruction ended abruptly in 2019-2020, and students and instructors were forced to turn to technology to watch, learn and collaborate. The all-important hands-on learning was not possible because of the unexpected pandemic, and so for the first time ever, our vocational instructors relied solely on their creativity, their understanding of instructional technology, and their technical skills to carry them through the end of the year. Our academic teachers collaborated to create lessons and assessments that would effectively measure learning in a remote setting, and explored countless apps and platforms to increase engagement. Students who looked forward to events like SkillsUSA competitions, prom and graduation, grappled with disappointment and the unknown, and Guidance Counselors worked diligently to reach out to students who were now more isolated from their peers than ever before. To say 2019-2020 was challenging may be an understatement, but to disregard our progress as an educational community would be a disservice to everyone who worked so hard to serve our students. While the traditional school year may have been abbreviated, so many incredible achievements were recognized in this historic year.

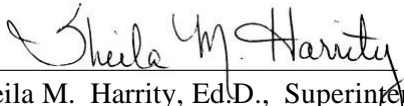
A project more than 7 years in the making, the Monty Tech Veterinary Clinic, opened and began providing affordable veterinary care to pets in need, across our district. Routine wellness care visits, affordable medications and vaccinations, diagnostic services, primary care surgical services, stable urgent care, compassionate end of life care, and dentistry services were delivered by our talented Veterinary Medical Director, Dr. Kayla Sample. Students worked in the new state-of-the-art clinic, learning techniques and gaining knowledge that align with veterinary assistant programs across the Commonwealth. In fact, Becker College has recognized the Monty Tech Veterinary Science program for its rigor and content, and has offered qualified program graduates up to 13 college credits. Further, relying on the school’s trusted model of school-to-business partnerships, a unique collaboration between Monty Tech and VCA has resulted in co-op placements for Seniors in the program.

In August 2019, Monty Tech accepted a \$384,257 award from the Massachusetts Skills Cabinet. This award provided funding to update technology and equipment in two shops: Health Occupations and Automotive Technology. Health Occupations students worked and learned in updated shop facilities, to include new hospital beds and lifts, as well as new diagnostic equipment to train students in the proper procedures for testing for cholesterol, blood sugar, lead, lung volume, and more. In addition, the program received state-of-the-art virtual dissection technology, bringing lessons in anatomy and physiology to new heights. This equipment, provided by Anatomage and most often found on college campuses, immediately engaged students, bringing a deeper level of knowledge and understanding to students as they explored the human body and its complex systems.

Students in the Automotive Technology program were introduced to an all-new simulation lab, that now includes the latest technology in trainers and simulators aligned with NATEF standards. The shop was updated to include new automotive lifts, floor jacks, engine stands, chargers, an air table, and a redesigned tool crib with all new hand tools. Further, in 2019-2020, in partnership with Snap On Tools, instructors rolled out a more sophisticated technical training program and increased opportunities to earn all-new diagnostic credentials, validating their experience and ability to diagnose and service today’s computer-controlled vehicles. With new curriculum, technology and the addition of NC3 Automotive Diagnostic Certifications to the program, our Automotive Technology program graduates will enter a competitive workforce poised for success.

Students who attend Monty Tech have chosen a high school experience unlike any other. While completing all of the same high school requirements of students enrolled in a traditional, comprehensive high school, our students are also learning a valuable trade – skills they will carry with them for a lifetime. In the most challenging times, our students are called upon to demonstrate creativity, innovation and technical skill proficiency, and though face-to-face instruction may have been interrupted, their achievements continued. 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 2019-2020 annual report to you.

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

Christina Favreau, Director of Academic Programs

Jim Hachey, Director of Vocational Programs

Michael Gormley, Director of Facilities

Donald Kitzmiller, Director of Technology

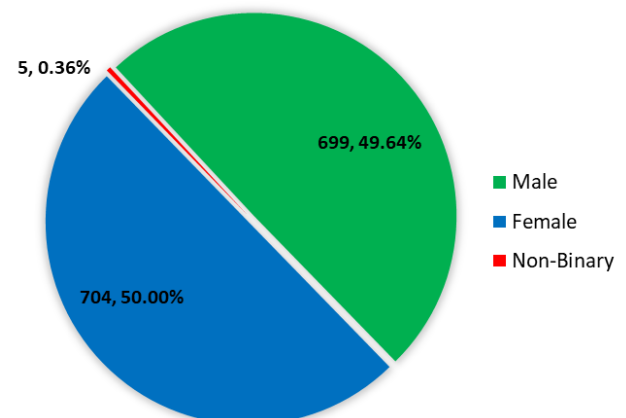
Katy Whitaker, Development Coordinator

Victoria Zarozinski, Director of Student Support Services

Enrollment

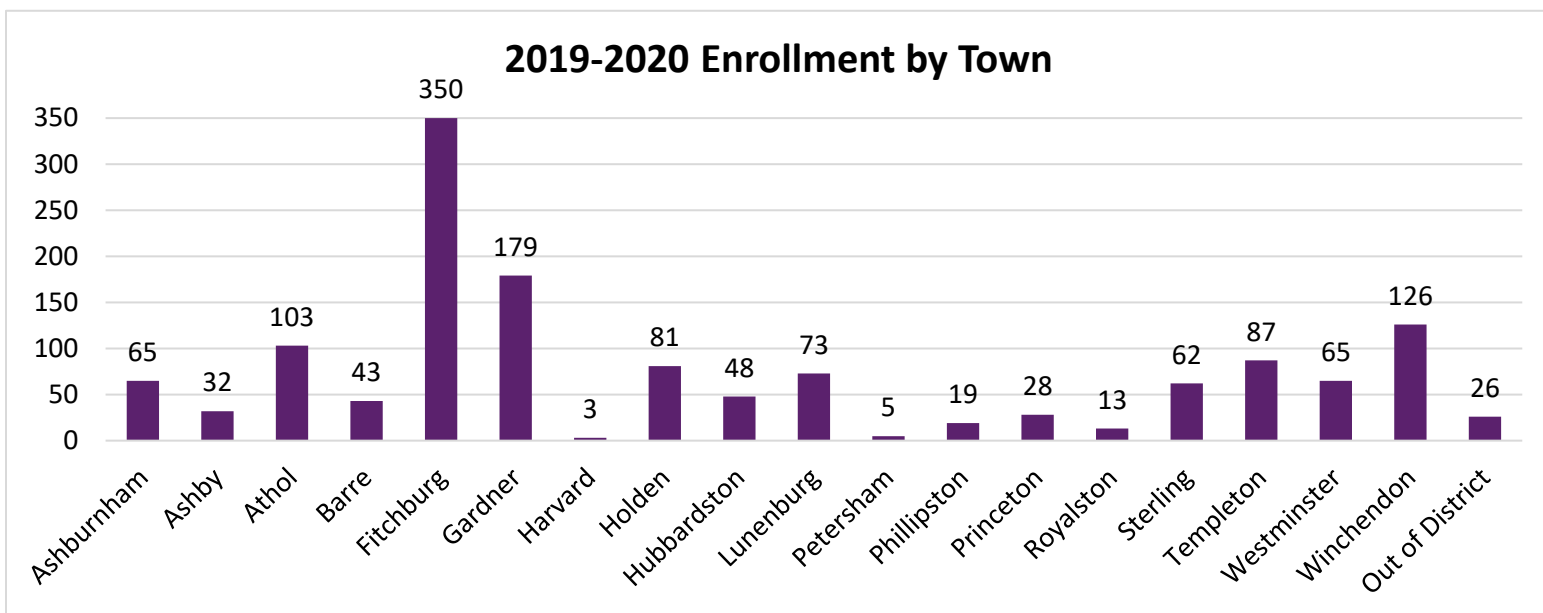
On June 1, 2020, student enrollment at Monty Tech included 1,408 students in grades nine through twelve, representing each of the district's eighteen sending communities. Each class of students is comprised of a relatively equal balance of male vs. female students, and each student attending Monty Tech 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.

2019-2020 STUDENT ENROLLMENT



Throughout 2019-2020, Monty Tech offered a variety of opportunities for students, parents, and community members to learn about and visit the school. In October 2019, approximately 450 district eighth graders participated in the annual “Tour Day” event. Students toured our twenty-one 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. While the program continued to attract a large number of students during the Fall and Winter sessions in the 2019-2020 school year, serving 518 area students, the Spring session was cancelled due to the widespread pandemic.



Class of 2020 Awards

Members of the Class of 2020 were awarded approximately \$200,000 in scholarships, tools, and equipment. The Monty Tech Foundation generously provided \$28,000 in scholarships to graduating seniors, ranging in amounts from \$400 to \$2,000. The Foundation also awarded \$3,570 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 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 31% of the graduating class of 2020 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

In an effort to develop a cost-effective budget for the fiscal year 2019-2020, a great deal of effort was put forth by the School Committee, administration, and staff. The final fiscal year 2019-2020 Educational Plan totaled \$28,760,202 which represents a 3.62% increase over the 2018-2019 Educational Plan. The District's FY20 budget only exceeds the minimum spending required by Massachusetts General Law Chapter 70 by \$145,657 or .6%.

The District was audited in December 2020 as part of the yearly financial audit by the accounting firm of Melanson, Heath and Co. from Greenfield, MA and expects to receive a good report.

Grants and Contracts

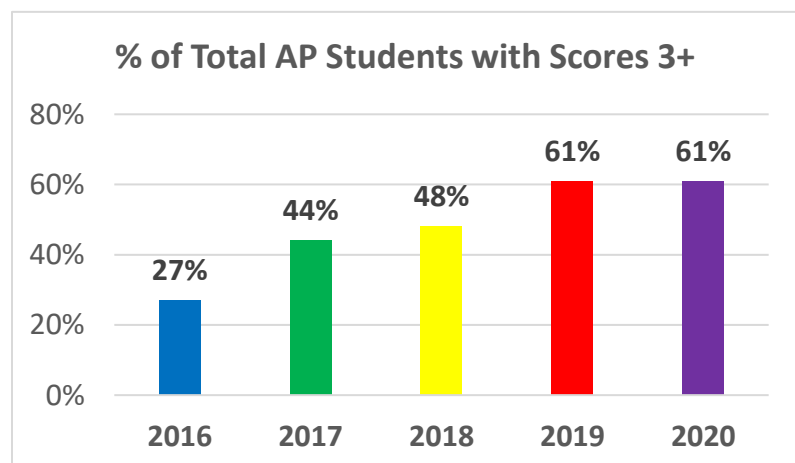
Monty Tech continues to pursue grant funding on an annual basis. These funds help provide many educational and social services to the student population. For fiscal year 2020, state and federal grant sources provided the school with \$978,827. Programs funded by these grants include: Essential Health Services, Improving Teacher Quality, Special Education Services and Program Improvement, Title I Support, Perkins Occupational Education, Student Support and Academic Enrichment and Marine Corp Junior Reserve Officer Training.

Academic Achievement

During the spring of 2020, the administration of the MCAS was postponed due to COVID-19 safety precautions. Last year, Monty Tech's passing rate on the English Language Arts was 99%, Mathematics 97%, Biology 99%. Monty Tech students exceeded the state averages in all 3 subjects. With regard to our Accountability status, Monty Tech made "Substantial Progress Toward Meeting Targets."

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 English courses, two mathematics courses, two science courses, and one computer science course). In addition, teachers have participated in meaningful, high-quality professional development which has enabled us to successfully implement two Project Lead the Way biomedical courses and 2 dual enrollment science courses (Biology and Biotechnology).

During the spring of 2020, students at Montachusett Regional Vocational Technical School continued to demonstrate high academic achievement, earning commendable scores on AP exams. It is important to remember that these exams took place during remote learning. AP exams were modified significantly prior to testing, the testing environment was remote, and teachers may have faced some challenges in planning some of the components of the curriculum (due to COVID-19). Although we are pleased with the results, we are aware that these issues, in addition to potential internal scaling applied by the College Board, may have significantly impacted the final results.



The school is in its 8th year of administering Advanced Placement exams, and students enrolled in AP courses continue to improve their performance.

- In the spring of 2020, 89 out of 146 (61%) exams earned qualifying credit - the highest number of “exams” with qualifying scores we’ve ever had.
- This year, more than half of the students who tested in the following subjects received qualifying scores: AP Literature, AP Language, AP Environmental, AP Chemistry and AP Statistics (5 out of 7 subjects).
- The AP subject with the highest number of students with qualifying scores was AP Literature & Composition with 41 out of 54 students (76%). It was also the AP subject with the most “test takers” with 54 students taking this exam.
- Students who completed the AP Literature, AP Chemistry, and AP Environmental exams exceeded the “state” averages in Massachusetts. In addition, students who completed the AP Literature, AP Language, and AP Environmental exceeded “global” averages.
- Most notably, AP Literature and AP Environmental exceeded both state and global averages.

	Spring 2016 (SY15-16)	Spring 2017 (SY16-17)	Spring 2018 (SY17-18)	Spring 2019 (SY18-19)	Spring 2020 (SY19-20)
MT AP Courses	5	6	7	7	7
MT AP Student Enrollment	188	151	135	157	179
Students with Qualifying Scores	39 (27%)	53 (44%)	46 (48%)	68 (61%)	89 (61%)
AP Test Takers	145	120	95	111	146
Total # of Qualifying Exams	44 (24%)	65 (44%)	58 (43%)	79 (54%)	75 (71%)
Total # of AP Exams	187	148	134	146	106

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-one different vocational-technical education programs are building homes, reconstructing damaged properties, repairing service vehicles, making walkways more accessible, and performing countless community services. Unfortunately, the widespread pandemic forced a school closure, and vocational instruction was delivered remotely beginning March 2020. In turn, opportunities for hands-on learning were impacted, and cooperative education placements available to students were also restricted, as business partners were unable to sustain full staffing.

Auto Body Collision Repair Technology: The Monty Tech Auto Body program benefitted from much-needed, new instructional equipment in 2019-2020, receiving a new Snap-On Air conditioning machine and a wall-mounted pressure washer, which provided additional floor space. Students were trained with the Pro-Spot M.I.G brazing and aluminum M.I.G.Welder, and all Seniors received their EPA 6 H Certificate, I-Car Pro Level 1 in Refinishing and Non- Structural Repair Certifications. A bridge project was completed in collaboration with Worcester Polytechnic Institute (WPI), and soon thereafter our community service projects were discontinued due to the pandemic. Three Seniors and two Juniors earned co-op placements, and students performed quite well at the SkillsUSA District competition, earning a gold medal in Collision Damage Appraisal, a silver medal in Refinishing, and silver and bronze medals for Collision Repair. (Total student enrollment: 63)

Automotive Technology: The Monty Tech Automotive Technology program was awarded the FY20 Skills Capital Grant, and as a result students and instructors began the 2019-2020 school year in a shop that included a newly designed

and outfitted tool crib, five new floor jacks, three new automotive lifts, one air table, five engine stands, three chargers, and an all-new Auto Lab that includes high tech trainers and simulators aligned with NATEF standards. Two additional certification opportunities (digital multimeters and scan tool applications) were made available to students, using the newly purchased Snap-On NC3 certified training equipment. These industry-recognized credentials and the new equipment will enhance our students' level of competency within the automotive industry for years to come. Until the pandemic forced a building closure, students and staff in the Automotive Technology program had worked on or diagnosed more than 200 vehicles. Students performed repairs that included transmission replacements, intake manifolds, brake work, and various other technical repairs, demonstrating technical skills that are required for any service technician in our area. Three Seniors and one Junior earned co-op placements, while instructors continued to utilize e-learning program options to keep the remaining students on track and engaged during the closure. (Total student enrollment: 62)

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. Instructors, in collaboration with their post-secondary colleagues, continue to refine and develop new articulation agreements. The agreement with Mount Wachusett Community College will provide qualified students with college credits at no cost to the student. Students are eligible to receive 24 credits from Mount Wachusett Community College. 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. Five Seniors and five Juniors were out on co-op placements during the 2019-2020 school year. (Total student enrollment: 71)

Cabinetmaking: Monty Tech Cabinetmaking students are called upon for a number of projects small and large, across the campus and beyond. 2019-2020 was no exception. Students completed projects that include: building a beautiful solid oak cabinet for the Fitchburg Alumni class of 1969, to be presented as a gift to Fitchburg High School's library; designing and using CNC technology to manufacture signage for the Devens Fire Department; and collaborating with Worcester Polytechnic Institute to mill and CNC over 400 pieces of ash to be used for strength testing for their engineering students. Sophomores in the Cabinetmaking program also designed and constructed three hundred fifty 10"x19" sapele charcuterie boards with pocketed cut-outs to accommodate two serving dishes and slate tray. The finished pieces will be used to raise funds for the Student Scholarship Program, supporting the Class of 2021. Eight Seniors and four Juniors earned co-op placements, representing the program so well. (Total student enrollment: 67)

CAD/Drafting & Design: In 2019-2020, the Monty Tech CAD/Drafting & Design program welcomed a new instructor, Jesse Veinotte, whose talents will help guide the Freshmen and Senior experience for years to come. While the school closure certainly curtailed the number of community serve jobs our students were able to complete, the curriculum was easily adapted into an online platform, and students were able to achieve a number of valuable industry-recognized certifications, including AutoCAD, Inventor, Revit, and Solidworks. Twelve students advanced to the SkillsUSA States competition, representing the program well, while two Senior students were proud to earn coveted co-op placements, working at Process Cooling in Leominster, MA and United Plastic Fabricating in North Andover, MA. (Total student enrollment: 61)

Cosmetology: The Monty Tech Cosmetology program is one of the only programs that students may leave and directly enter the industry, fully-licensed and ready for a career. The state-approved program is rigorous and provides students with countless opportunities to refine their cosmetology skills on clientele who understand and appreciate the learning environment. 2019-2020 was an exceptionally busy year for the Monty Tech Cosmetology students, who were compelled to raise funds for a local family in need, and did so by hosting "Staff Nights." Monty Tech staff and their families were invited into the shop for discounted services, and proceeds were donated to support a young girl who tragically lost her father in an accident. Their dedication to community service and "giving back" was a hallmark of the Cosmetology Class of 2020, and a testament to the students who worked so hard and learned so much while in the Monty Tech program. Eighteen students took and passed the Cosmetology State Board exam, and are now prepared for careers in the field. In addition, a total of one nine Seniors earned co-op placements in local salons – more than any year before. (Total student enrollment: 86)

Culinary Arts: In a typical year, Monty Tech Culinary Arts students and instructors operate a full-service restaurant and bakery, serving 90-120 patrons daily. They might also showcase their talents at regional events and fundraisers, working side-by-side with some of the area's finest chefs. But 2019-2020 was no ordinary year. The school's Mountain Room Restaurant closed in March, and all in-person dining/serving experiences were cancelled for the students. Curriculum transitioned from in-person to a virtual platform, which is challenging for the culinary trade, but the instructors did so effectively, seeking meaningful opportunities for their students to continue to develop in their chosen trade. Despite the pandemic, all students successfully earned Allergen Awareness and ServSafe Certifications, which are important credentials to have for any entry-level position in the culinary and hospitality trades. (Total student enrollment: 97)

Dental Assisting: A critical component of the Monty Tech Dental Assisting curriculum is the preparation for the Dental Assisting National Board certification exams. In 2019-2020, all students who sat for both the DANB Infection Control exam and the DANB Radiology exam, passed. This 100% pass rate is a true testament to the high quality instruction in the Monty Tech Dental Assisting program, and something we continue to be so proud of. A total of four students (two Seniors and two Juniors) earned co-op placements, while the remaining Juniors and Seniors participated in affiliation/externship experiences in area dental clinics and offices. Monty Tech Dental Assisting students and instructors also worked closely with local health provider, Community Health Connections, and provided dental services to more than 35 students in need through this beneficial school-based dental hygiene program. This experience provided valuable hands-on experience, as students were called upon to assist the staff from CHC during each dental procedure performed. (Total student enrollment: 60)

Early Childhood Education: Students and instructors in the Monty Tech Early Childhood Education program are committed to community service activities, and the 2019-2020 school year was no exception. Students and instructors raised funds for SkillsUSA Change for Children and held a Sesame Street themed "Baby Show" for the Gardner VNA "Healthy Families" program. Two Juniors and one Senior were out on co-op, gaining valuable experience working with young children, and instructors worked closely with colleagues at Fitchburg State University to develop the program's first-ever articulation agreement between the two institutions. Fitchburg State University will now grant qualified program graduates up to 6 college credits, at no charge, recognizing the work they have completed while enrolled in the Monty Tech Early Childhood Education Program. The Monty Tech Child Care Center continues to operate at full capacity but in a hybrid model, providing meaningful hands-on learning opportunities for all students in the Early Childhood Education program. (Total student enrollment: 60)

Electrical: Throughout 2019-2020, students and instructors in the Electrical program wired numerous machines, equipment, computers, and lights throughout Monty Tech. Students and instructors successfully completed wiring new equipment in the AutoBody Shop, and CAD/ Drafting & Design shop. The students wired the new electronic parking lot gate, and began wiring two homes in Ashburnham, constructed in collaboration with Habitat for Humanity. Unfortunately, when the school closed in March 2020, all hands-on projects for students ceased, so wiring those homes was completed by our instructors, who volunteered their time to do so. Fourteen Seniors and two Juniors earned co-op placements, and continued their work throughout the Spring and into the summer months. The Freshman class was filled with first choice students, which is a credit to the talents of the program's newest instructor, Alex Thibeault. (Total student enrollment: 89)

Engineering Technology: The Engineering Technology program at Monty Tech is a rigorous program, infused with a 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. On October 22, 2019, the school welcomed Lt. Governor Karyn Polito, to celebrate the completion and ribbon cutting of the school's new ARM (Automation, Robotics and Mechatronics) Lab. All Engineering Technology students benefitted from the new technology available in the lab, including three Amatrol tabletop mechatronics learning systems with Pegasus robots, one Fanuc LR Mate 200ID/4S robot, one Festo MPS 203 mechatronics system, and one Stratasys F270 3D printer. All Freshmen completed the OSHA 10-hour General Industry training and certification program, while two Seniors participated in meaningful co-op placements. (Total student enrollment: 57)

Graphic Communications: Throughout the 2019-2020 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. Due to the COVID-19 pandemic, hands-on learning opportunities were halted in March, so students were unable to complete all community services that were requested. A program highlight for the year was

having twelve students earn awards at the Printing Industries of New England's Award of Excellence Gala. Having their talents recognized by industry professionals is not only rewarding to the student, but also validates the efforts of our talented teaching staff. Four Seniors and one Junior pursued and earned co-op placements. Of the twenty-one talented Seniors who graduated from the Graphic Communication program in 2020, all twenty-one were accepted into colleges/universities and eight chose to enter the workforce in related careers. (Total student enrollment: 85)

Health Occupations: The Health Occupations program continues to be one of the more popular programs here at Monty Tech, providing a rigorous education grounded in current medical knowledge and practice. A Skills Capital Grant award provided the program with \$180,246 in additional funding, so during the Summer of 2019, great efforts were made to improve the instructional spaces, and bring in added technology and equipment for student training purposes. In addition to new hospital/nursing home beds, exam tables, EKG machines, geriatric manikins, CPR manikins, stethoscopes, blood pressure and phlebotomy training arms, and five new testing/diagnostic machines, the school was able to purchase the program's first-ever Virtual Dissection Technology. The high-capacity Anatomage table is something most often found on college campuses, but has proven to be an invaluable training device to Monty Tech Health occupations students studying for one of their many certification exams. Every Junior enrolled in the Health Occupations program earned CPR certification; thirteen Juniors received their nursing assistant certificate (only fourteen students took the exam prior to school closing in March 2020. Those who did not pass or complete the CNA exam will be able to do so during the 2020-2021 school year.) Students at all levels completed pandemic-specific training, and obtained the National COVID-Ready Caregiver Certification, which was recommended by the Department of Public Health for all healthcare professionals. Finally, through a unique collaboration with Mount Wachusett Community College, three motivated Seniors completed the Emergency Medical Technician training program, earning eight college credits at no cost, and now have a valuable career pathway available to them. (Total student enrollment: 107)

House Carpentry: The Monty Tech House Carpentry program supported a number of community organizations during the abbreviated 2019-2020 school year, completing projects that include: building a 24'x40' lean-to roof at the Hubbardston DPW Salt Barn, construction of a Habitat for Humanity home in Ashburnham, and finishing all interior trim at the NEADS carriage house, located in Princeton. Students and instructors were also called upon construct a prefabricated stage for the Fitchburg State University Theatre Club, and were delighted to work closely with our post-secondary partners in doing so. Sophomore students handcrafted a number of beautiful Adirondack chairs, which will be used for charitable donations in the months to come. Finally, eight Senior students earned co-op placements, and enjoyed working with area businesses representing the carpentry and construction trades. (Total student enrollment: 54)

HVAC & Property Maintenance: Monty Tech HVAC and Property Maintenance students and instructors participate in the home building project each year, installing the HVAC system and a number of other tasks associated with residential construction efforts. In 2019-2020, Monty Tech HVAC students and instructors worked in Ashburnham to support the Habitat for Humanity community service project. In addition, they traveled to Sterling Municipal Light Department to complete work there. The Monty Tech HVAC & Property Maintenance program also established a partnership with the Monty Tech School of Continuing Education, to offer Oil Burner Technician training and certification to the high school students. After earning National EPA Certification for refrigerant recovery, a total of nine Seniors were placed in area businesses through the school's popular co-op program. HVAC Technicians, and specifically Oil Burner Technicians, are in demand across North Central Massachusetts, so the addition of this credential will prove to be beneficial to all program graduates who choose to stay in the HVAC and Property Maintenance trades. While Junior students were not eligible to go out on co-op in 2019-2020, instructors offered high-quality online instruction and support, so that they might continue to refine their technical skills and proficiency using various online lessons and assessments. (Total student enrollment: 64)

Information Technology: The Information Technology program continues to offer students more industry-recognized certificates than any other program at Monty Tech, an accomplishment our instructors are so proud of, as these certifications affirm the technical skill proficiency needed for entry-level careers in networking and information technology. In 2019-2020, all Freshmen completed the OSHA 10-hour General Industry training, and all Sophomore students passed the Test-out PC Pro Certificate exam, the Cisco IT Essential course for computer repair and maintenance, and the Introduction to Networking course. One Sophomore, one Junior, and one Senior elected to take, and passed, the COMPTIA A+ exam. All Seniors completed the Python Programming course and participated in the AP Computer Science Principles course. Seven Seniors and one Junior earned co-op placements, applying their technical skills in area

businesses. In total, approximately 100 hours of community tech support were completed, which involved hardware and software troubleshooting on desktops, laptops, printers, and mobile devices. (Total student enrollment: 36)

Machine Technology: Throughout the 2019-2020 school year, Monty Tech Machine Technology instructors were able to effectively train students in precision measurement, CNC operation and cutter technology. Students worked on the shop floor and in the program's relatively new Clean Room environment, which was an addition to the program in 2018, funding by a \$435,000 Skills Capital Grant. A new print reading curriculum was adapted and applied, to expand the already comprehensive curriculum. All Freshman students earned the OSHA 10-hour general industry certification, while seven Seniors and four Juniors earned co-op placements, working and learning in area machine shops. (Total student enrollment: 45)

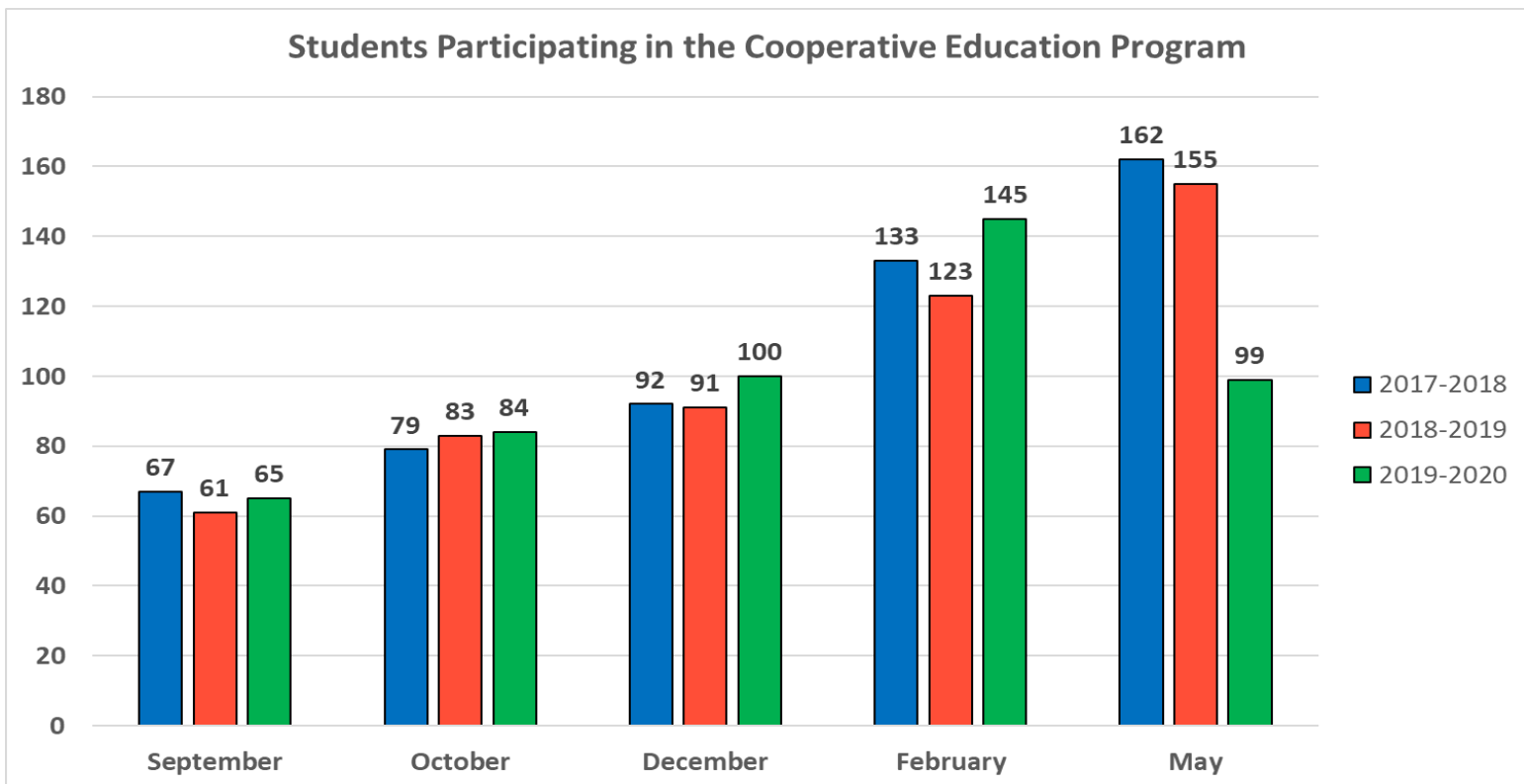
Masonry: The talents of Monty Tech Masonry students are on display throughout district communities, as projects that were completed during the 2019-2020 school year include: a block garage at the Lunenburg North Cemetery, block renovations for Sterling Municipal Light Department, a handicap ramp for the Hubbardston Police Department, and a detailed repair of the marble floor at the Forest Hill Cemetery Mausoleum. Students continued to maintain the OSHA silica standard, in a program that operates in compliance with all trade regulations. Three Seniors earned co-op placements, and continued to refine their skills working with business partners through the school's co-op program. Unfortunately, due to the restrictions in place due to COVID-19 closure, Juniors were not able to participate in the co-op program. (Total student enrollment: 53)

Plumbing: In the 2019-2020 school year, eighteen Freshmen entered the Plumbing trade at Monty Tech, all of whom successfully completed OSHA 10-hour General Industry safety training. Sophomore Plumbing students completed OSHA 10-hour Construction Training. Students and instructors completed replacement of water coolers throughout the Winchendon Public School District. Juniors and Seniors also gained valuable experience working on the plumbing at the two Habitat for Humanity homes in Ashburnham. Ten Seniors and one Junior participated in the co-op program. One Senior received the prestigious 2020 Vocational Tech Plumbing All-Star Award, given by the Plumbing, Heating, and Cooling Contractors Association of Massachusetts, and all Seniors earned industry-recognized NFPA Hot Works safety training certificates. The program proudly graduated 18 students. (Total student enrollment: 71)

Veterinary Science: The school's newest vocational training program, Veterinary Science, entered its third year, and after many years of planning, opened the doors of the clinic to pets in need. A successful Exploratory program resulted in a full class of twenty-two eager Freshmen, who were quick to get to work, completing the OSHA 10-hour healthcare training and certification program, and spending the remainder of the second semester engaged in introductory animal science lessons, with a virtual field trip to see cattle owned by a classmate. Sophomores worked through some very challenging curriculum, covering units in client services, hospital management, anatomy, pathology and laboratory procedures. They visited Flying High Farm in Lunenburg to work with horses and complete the program's large animal requirements, and also toured Idexx laboratories in North Grafton, MA to observe all aspects of clinical pathology. The Juniors delved into even more rigorous curriculum, which would complement their hands-on work in the clinic. Lessons in pharmacology, grooming, surgical and nursing care, and anesthesiology proved to be invaluable to the program's first class of students to work in the clinic, applying their knowledge as they worked alongside veterinarians, groomers, and veterinary technicians. (Total student enrollment: 64)

Welding/Metal Fabrication: The 2019-2020 school year brought new equipment to the school's popular Welding/Metal Fabrication program. A 4 ft. squaring shear was added to the training program, to better prepare students for entry level careers in the trade. 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. In response to the school closure, instructors implemented a new online learning platform from Miller Welding Open Book for grades 11 and 12. All Freshmen students successfully completed the OSHA 10-hour General Industry training, and earned that certification. Juniors and Seniors participated in Careersafe Online Employability Interview skills, which is a targeted effort to compliment their already strong technical skills with the soft skills needed to succeed in life. Eight Seniors and one Junior were placed in area shops, working and learning from trade professionals who support the school's co-op program. (Total student enrollment: 55)

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 with an opportunity to further develop academic, technical and employability skills in an industry work environment. All students are eligible to participate in the 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. Co-op 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. Monty Tech was on pace for a record-breaking year for co-op placements, with 145 students (Juniors and Seniors) working, learning and applying their technical skills related in area businesses in February of 2020. Unfortunately, due to the ongoing pandemic, co-op opportunities for our students have declined slightly, but are expected to rebound when local businesses are able to open and operate at full capacity.

Student Support Services

During the 2019-2020 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 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.

During the 2019-2020 Montachusett Regional Technical School District's Department of Student Support Services made a concerted effort to increase social, emotional, and community based supports. In addition to our current re-entry and school based counseling services, Monty Tech and LUK, Inc. joined forces with the help of the Department of Public Health to provide services to at-risk students and their families. Couple this with the further expansion of our partnership with the SHINE Initiative, it has allowed the district to build upon our mission to provide opportunities for all students to be engaged, lead, and access the supports necessary to improve their social and emotional wellbeing.

Technology

The 2019-2020 school year proved to be a test in many ways for the Monty Tech educational community, but was no match for the school's Technology Department. Because of forward thinking on the part of the department's Director and the school's leadership team, 2019-2020 was the school's 4th year for the 1:1 Chromebook initiative, so students and instructors had previous experience with the tools and technology needed to learn in a remote setting. To support the additional and now required use of this technology, the Technology Department spent countless hours during the school year upgrading the network and increasing the bandwidth coming into the school to sustain video and audio conferencing.

Department personnel upgraded the learning experience for students, by purchasing laptops for students and teachers, building new iMacs for the Graphic Communications program, and rebuilding surplus computers for full remote students in CAD Drafting & Design, Graphic Communications, Business Technology, and Engineering, so that they may work from home on their vocational assignments. A ZOOM license was purchased, and the Instructional Technologist worked diligently to purchase and deploy software for all teachers. Camcorders, wireless headsets, interactive displays and a variety of apps were purchased, installed, and put into the hands of our educators to engage learners at all levels.

Finally, to ensure "business as usual," we invested in Splashtop, VPN client and configured the firewall, so that faculty and staff laptops could be fixed remotely if a software issue presented itself, and so that the Business Office would have remote access into the school to maintain a secure working environment, even when the building was closed.

Marine Corps JROTC

The Monty Tech Marine Corps Junior Reserve Officer Training Corps (MCJROTC) remains one of the school's most worthwhile and engaging programs available to our students. Due to outstanding performance throughout the year, Monty Tech's Marine Corps Junior Reserve Officers' Training Corps program was, once again, designated as a Marine Corps Honor School. Selection for the Marine Corps Honor School means that the school's Marine Corps JROTC program was in the top 15% of the 68 other programs in Region 1. Region 1 includes schools from the mid-Atlantic and Northeast U.S. The selection is based on several criteria including:

- *Inspector General's inspection results*
- *Number of cadets in the program*
- *Number of community service hours conducted*
- *Number of public affairs events attended by cadets*
- *Number of academic awards presented to cadets*
- *Participation in drill team competitions, marksmanship competitions, physical fitness competitions, and field trips that support the growth and development of the cadet*

Because of this distinction, Monty Tech MJROTC instructors are allowed to nominate up to six cadets to each of the three service academies — U.S. Naval Academy, U.S. Military Academy and U.S. Air Force Academy. This is the 9th time the program has earned this distinction since 2007.

The 2019-2020 Corps of Cadets completed over 4,800 hours of community service in the abbreviated year, completing a 10 mile March A Thon that raised \$20,000 to support local nonprofit organizations. The Cadets volunteered time during their weekends, working with the local Salvation Army, and helped raise more than \$25,000 for families in need. Finally, the Monty Tech Cadet Corps provided 11 Color Guards for local civic and veteran ceremonies, a highlight for students and instructors alike.

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 2019, Monty Tech offered 142 classes and another 114 in the Spring 2020 semester.

The program is on track to support the North Central Massachusetts workforce readiness pipeline with an increase in career and licensure courses. The pivot to a hybrid learning model has been beneficial to both our career/licensure students as well as our personal enrichment students. During the Fall 2019 and Spring 2020 sessions, we realized the resiliency of our students and their willingness to persevere with their training despite the challenges. Our instructors worked tirelessly to maintain training programs timelines.

Our medical students' skill set was and continues to be in high demand due to the pandemic. We were able to support our local medical facilities with newly license healthcare workers, to include Pharmacy Technicians, Medical Billing and Coding Specialists, EKG Technicians, Phlebotomists, CNAs, and Patient Care Technicians.

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 goals in the coming year include: identifying additional training opportunities to meet the needs of the regional workforce, provide affordable and meaningful training opportunities to our nontraditional student population, and expanding programming to include off-site, daytime training opportunities across the region.

Practical Nursing Program

The Monty Tech Practical Nursing Program is designed to prepare graduates to practice safely and ethically in a caring manner for patients who are experiencing common variations in health status in diverse health care settings.

On June 25, 2020 a graduating class of 28 students completed the Practical Nursing Program and entered the nursing profession. The class has thus far achieved a pass rate of 75%, with 21 of the 28 graduates passing the NCLEX-PN exam (National Council Licensure Examination for Practical Nurses). Due to the pandemic, the testing period has been extremely delayed. Seven graduates will pursue the examination in the coming months.

All of the 2020 graduates are currently employed in the health care profession throughout Massachusetts, working in various health care settings, such as long-term care, sub-acute care, mental health/substance abuse facilities, physician's offices and correctional medicine.

The Monty Tech Practical Nursing Program continues to strengthen the “LPN to BSN (Bachelor of Science in Nursing) Bridge” relationship with Fitchburg State University. Several 2019 and 2020 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. In the 6-year history of the Bridge Program, all of Monty Tech’s Practical Nursing graduates reaching graduation at FSU have passed their RN-NCLEX exam.

Monty Tech Practical Nursing students are now completing patient scenarios in the Sim Lab on a weekly basis in Terms 2, 3, and 4. The Faculty Sim team has implemented National League of Nursing (NLN) patient scenarios and authored several others 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 library of scenarios reflecting INASCAL Standards (International Association for Clinical Simulation and Learning).

In Maternity Sim Lab Boot Camp, students utilize the new simulation models to imitate the birthing process, from obstetric office visits through labor and common post-partum complications. Well newborn care is also taught. Student feedback has been positive regarding these new maternity scenarios, stating it better prepares them for an unexpected outcome during a delivery. This expanded content also better prepares students for NACE (Nursing Acceleration Challenge Exam) success at FSU.

Substance abuse and the mental health setting job opportunities have increased with more funding being provided to combat the opiate crisis. Even without having specialty clinical rotations, students performing simulation scenarios involving substance abuse clients, has prepared our graduates to work in a substance abuse clinical setting, as well.

We are expecting an accreditation visit from the Massachusetts Board of Registration in the coming year. Our goals include stabilization of faculty positions, securing a certified Simulation Instructor, and pursuance of ACEN (Accreditation Commission for Education in Nursing) to more accurately reflect the changing environment of nursing education.

Looking Ahead

While 2019-2020 ended in an unexpected manner, with students and instructors working and learning from home, we were able to use that time to reflect on the core values represented within our educational community and consider how we might improve the educational experience for all students upon their return. We understand that the pandemic brought about many changes to the way we live and work. Our students were isolated for weeks and months, while our instructors were asked to completely redefine their instruction to deliver an entirely remote curriculum. People of all ages, socio-economic classes and intellectual abilities feared for the safety of their family, friends and loved ones – compounding feelings of loneliness and uncertainty. As we looked ahead, then, a number of priorities for the upcoming school year emerged.

Supporting students and staff both socially and emotionally, providing the resources needed to succeed in a remote learning environment, and maintaining a clean and safe learning environment have become our latest priorities.

The changes brought upon by the pandemic were not expected. There was no time to prepare our staff and students for what might lie ahead, but I am thankful for the expertise and flexibility demonstrated by our very talented faculty and staff, and the students who made the most of a very difficult end of the 2019-2020 school year.

Programs and initiatives that we expect to implement in 2020-2021 that will have a positive impact on our school and students are as follows:

Support faculty, staff and students' socio-emotional wellness, and develop a community-wide understanding of equity (or lack thereof) and how it contributes to a safe and supportive learning environments for all students. We recognize that students and staff have been home and isolated from others for months. Learning from home may have presented an unintended result - unequal learning opportunities. There are fears and concerns among staff, and there is a heightened sensitivity to what this isolation has meant to our student population. Collaborating with community service agencies, we will address efforts to create a healthy school climate, and will provide targeted training opportunities to better serve our students. A diverse team of professionals (teachers, paraprofessionals, guidance counselors, and support staff) will review existing district and school documents and policies, survey staff and students regarding school climate, and develop a comprehensive action plan, and infuse those elements into the 2021-2024 District Improvement Plan.

Expand technology resources and infrastructure to support Hybrid and/or Remote Learning Platforms. Monty Tech is fortunate to have been able to provide all students with a Chromebook for the past several years, and all teachers with Chromebooks or laptops to support curriculum development efforts while away from the school. That technology proved to be invaluable during the 2019-2020 school year, and so the District is committed to maintaining and expanding access to instructional technology that will enhance at-home learning moving forward. During the summer of 2020, we learned that school would not resume with all students in-person. A complex schedule (balancing academic and vocational in-person instructional time) was negotiated and agreed upon, and students/parents were given the option of returning in a hybrid or fully remote model. By purchasing and maintaining ZOOM licenses, increasing bandwidth, reconfiguring surplus equipment, and continuing to work with the school's Instructional Technologist to provide a variety of workshops to academic and vocational instructors who have come to rely on any one of the two school's Learning Management Systems (Google Classroom or Schoology), Monty Tech will be well-positioned and prepared to deliver instruction either in-person or remotely, at a moment's notice.

Modify facilities and infrastructure to ensure students, faculty and staff are working and learning in a safe environment. While the school is prepared to provide all faculty and staff with required and requested PPE, many upgrades to the school building must be completed prior to and maintained throughout the 2020-2021 school year. All rooftop units will be upgraded from MERV 8 to MERV 13 rated air filters, which are high quality air filters typically used in general surgery or hospital settings, capturing down to 0.3 – 1.0 micron particle size. iWave units will be added to the HVAC system, reducing pathogens, allergens, particles, smoke and odors in the air, creating a healthy environment without producing any harmful byproducts. Installing sanitizing stations, redirecting traffic patterns, and limiting the number of desks/seats in a confined space will provide a comfortable setting for the students during their in-person learning days, while limiting access to the school (parents and visitors must wait outside) will aid in screening and tracing efforts throughout the year.

The Monty Tech School Committee

The Montachusett Regional Vocational Technical School District Committee is comprised of twenty-two 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 2019-2020 School Committee for their outstanding service.

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Respectfully Submitted By:

Sheila M. Harrity, Ed.D., Superintendent-Director January 22, 2021

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