

**NEW ENGLAND ASSOCIATION OF SCHOOLS AND COLLEGES**

**COMMISSION ON PUBLIC SCHOOLS  
COMMITTEE ON TECHNICAL AND CAREER INSTITUTIONS**

**DECENNIAL REPORT**

**MONTACHUSETT REGIONAL VOCATIONAL TECHNICAL SCHOOL**

**1050 Westminster Street  
Fitchburg, Massachusetts 01420**

**April 25-28, 2016**

**Chairperson: Richard Shellman  
Assistant Chairperson: Tom Viola**

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## INTRODUCTION

Membership in the New England Association of Schools and Colleges is voluntary and requires that each school seeking initial or continued accreditation must conduct a self-evaluation and at least once every ten years host a committee appointed by the Committee on Technical and Career Institutions, Commission on Public Schools, New England Association of Schools and Colleges.

The U.S. Office of Education has officially recognized the Commission on Public Schools, through its Committee on Technical and Career Institutions, as the regional accrediting agency for vocational technical schools.

The intent of this evaluation process is to appraise the educational program of the institution, and to assist and encourage the development of formal plans for improvement of the institution and its program of study. To that end, the self-evaluation conducted by Montachusett Regional Vocational Technical School (MRVTS) is of major importance and influence in the development and success of this evaluation process. The school's self-study report, including supporting materials and information, was detailed and complete and enabled the Visiting Committee to complete its work in an efficient manner.

The other important component of the accreditation process is the work of the Visiting Team. With their broad backgrounds and interests, the Visiting Team expanded the self-evaluation by reviewing its validity and making additional suggestions where appropriate to address the ideas put forth by the school's self-study teams that are embodied in the self-evaluation report.

The Visiting Team's evaluation of the school's degree of compliance with the Standards for Accreditation was conducted in two phases: independently, prior to the visit, as all pertinent documents were shared and read. And then, on site from April 25-28, when the Visiting Team reviewed and discussed the MRVTS self-study, interviewed students and staff, observed teaching and learning, and observed the overall school atmosphere. Each conclusion in the Visiting Team report was agreed upon by team consensus. This report reflects the Visiting Team's best professional judgment as to the direction that the educational program at MRVTS should take.

The accreditation process should be a valuable indicator to all that the goal of MRVTS is to create and sustain quality educational programs.

The Visiting Team extends its utmost appreciation to the staff and administration of MRVTS for its warm welcome and its complete cooperation with the members of the Visiting Team. The opening night reception, which included reports on the School Philosophy and Goals and an overview of School and Community Relations, was very professionally done, and well attended by the Montachusett community; special note is made of the presentations made by students and the polished video presentation. Given the high degree of professionalism demonstrated by everyone associated with MRVTS, the Visiting Team is confident that entire 'Monty Tech' community will use the Visiting Team feedback to go beyond what they already achieve.

In addition to this report, the Visiting Team prepared and submitted to the Committee on Technical and Career Institutions a completed questionnaire indicating the degree to which Montachusett Regional Vocational-Technical School meets the following standards:

## **Philosophy and Goals**

The school, as an administrative unit, shall have a separate, clearly stated philosophy approved by the staff, administration and board of control. The philosophy shall be supported by definite, stated objectives designed to meet the individual needs of students and their communities. Institutional goals shall be subject to continuous review to ensure relevance.

## **Program of Studies/Curriculum**

The school shall have a carefully planned curriculum consistent with its stated philosophy and reflecting the needs of students, business and industry. Technical programs shall be competency based, identifying specific goals and the level of mastery that is expected in each program. There shall be a general education curriculum available with related content that is, when appropriate, identified in measurable competencies. There shall also be a diversified and balanced program of co-curricular activities.

## **Student Services**

The school shall have available and accessible directly or off-campus comprehensive personnel services to aid students in meeting educational, occupational and personal problems. Services should include the provision of career information, placement, referral and follow-up services to both present and former students.

Student personnel policies should include counseling in education, health, financial, technical and recreational activities. For its postsecondary programs, the school shall have ethical and clearly announced policies regarding financial arrangements, including refunds. Definite provisions shall be made for adequate student health services including, when appropriate, physical examinations and health records. The services of a physician and registered nurse should be readily available.

## **Education Media Services/Library and Audio-Visual**

The school shall have reference and library materials within resource centers readily accessible for students' use. There shall be adequate collection of books, periodicals, auditory and visual aids, available either in-house or off-campus in support of every aspect of the school's program. These facilities shall be used effectively in both academic and technical programs.

## **School Staff**

The school shall have a professional staff competent in its various technical and academic assignments. Staff members shall have high ideals, a sympathetic understanding of youth and a desire to continue professional growth. They shall be sufficient in number and work together to attain the objectives of the school. The school shall have an adequate number of support staff to provide appropriate services to include clerical and custodial assignments.

## **Records**

An adequate system of student records and permanent files shall be safely maintained. Information on individual students should include cumulative records of attendance, levels of technical attainment,

results of objective tests and placement data. There shall be an adequate means of reporting grades and maintaining records.

### **Administration**

Each district or school shall be organized so as to provide adequate administrative and supervisory personnel. There shall be effective and cooperative board-administrative relationships, as well as an appropriate degree of autonomy and authority with the organizational structure, which will allow school administrators to provide the necessary leadership. The Director, although accountable to a higher authority, shall be the responsible head and professional leader of the school.

### **Plant and Equipment/School Facilities**

Facilities shall be adequate in space and equipment to support the technical and academic offerings and be operated to ensure the safety and health of occupants. Equipment used for the purpose of instructing technical skills shall be sufficient in quantity, appropriate and consistent with the current state of the art.

### **School and Community Relations**

The school shall have a planned program of school and community relations to promote appropriate communication and interaction. The professional staff shall be encouraged to establish communication links with the community, business and industry. The program shall provide opportunities for the staff to interpret technical offerings through various publications and other media.

### **Financial Support**

Financial support shall be adequate to sustain the educational program, including activities. The degree of support shall be consistent with the stated philosophy and goals and with the Standards of Membership of the Committee on Technical and Career Institutions. Financial records clearly describing the school's fiscal status shall be maintained.

### **School Atmosphere**

The school shall have an appropriate intellectual atmosphere that indicates that effective technical and academic programs prevail. There shall be evidence of student and staff morale, accompanied by pride in achievement that reflects a school unified in spirit.

## **COMMITTEE MEMBERS**

**Richard C. Shellman**, Chair

Principal, Vinal Technical High School  
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**Lisa Oxford**

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**John Parsons**

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**Helena Rayne**

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Boston MA 02120

**J. Renana Rottner**

Eli Whitney Technical High School  
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**Sherrie Santangelo**

Bullard-Havens Technical High School  
500 Palisade Avenue  
Bridgeport CT 06610



**George Scobie**

Bay Path Regional Vocational Technical High School  
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Charlton MA 01507

**Donald Tatro**

Charles H. McCann Technical School  
70 Hodges Cross Road  
North Adams MA 01247

## COMMITTEE ASSIGNMENTS

### **School Philosophy and Goals**

J. Renana Rottner (Chair)  
Rich Shellman

### **School and Community Relations**

Lisa Oxford (Chair)  
Michael Plouffe

### **Educational Programs**

Helena Rayne (Chair)  
Carla Brown  
Rich Shellman

### **Educational Media Services**

Pasquale Genco (Chair)

### **Student Records**

Kelly Hamilton (Chair)  
Tom Viola

### **Administration**

Sandra Baldner (Chair)  
Rich Shellman

### **English Language Arts**

Sandra Baldner (Chair)  
Rich Shellman

### **Physical Education**

Sherrie Santangelo (Chair)  
Robert Herdlein

### **Social Studies**

Robert Herdlein (Chair)  
Sandra Baldner

## *Standards*

### **School Facilities**

Paul Mendez (Chair)  
Don Tatro

### **School Atmosphere**

George Scobie (Chair)  
Fernando DaSilva

### **Finance and Business**

Robert Herdlein (Chair)  
Fernando DaSilva

### **Student Services**

Kelly Hamilton (Chair)  
Kevin McDormand

### **School Staff**

Kevin McDormand (Chair)

## *Academics*

### **Math**

Pasquale Genco (Chair)  
Helena Rayne

### **Science**

J. Renana Rottner (Chair)  
Carla Brown

### **Special Education**

Helena Rayne (Chair)  
Kelly Hamilton

**Spanish**

Kevin McDormand (Chair)  
Fernando Da Silva

*Vocational*

**Auto Body and Collision Repair**

Michael Plouffe (Chair)

**Automotive Repair**

Michael Plouffe (Chair)

**Business Technology**

Brenda Doloff (Chair)  
Pasquale Genco

**Cabinetmaking**

John Parsons (Chair)

**Cosmetology**

Susan Fox (Chair)

**Computer Aided Drafting**

John Parsons (Chair)  
Edward Drapatin

**Culinary**

Susan Fox (Chair)

**Dental Technology**

Sherrie Santangelo (Chair)

**Early Childhood Education**

Lisa Oxford (Chair)  
Susan Fox

**Electrical**

Donald Tatro (Chair)

**Engineering Technology**

Adam Poplaski (Chair)  
Paul Mendez

**Graphics**

J. Rottner (Chair)  
Brenda Doloff

**Health Technology**

J. Rottner (Chair)  
Sherrie Santangelo

**Information Technology**

Tom Viola (Chair)

**HVAC/Property Management**

Donald Tatro (Chair)  
Adam Poplaski

**Machine Technology**

Edward Drapatin (Chair)  
John Parsons

**Masonry**

George Scobie (Chair)

**Plumbing**

Adam Poplaski (Chair)

**Welding**

Paul Mendez (Chair)  
Edward Drapatin

## **Montachusett Regional Vocational Technical School Mission Statement**

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.

### **School Goals**

- **A. School Environment**
  - To provide an environment that admits students to the school and makes available to them its advantages, privileges, and courses of study without regard to race, ethnicity, color, gender, sexual orientation, national origin, or disability.
  - To provide a safe environment in which everyone can feel free of harassment, threats, and abuse.
  - To promote effective communication and involvement among students, parents, and staff.
  - To develop good citizenship through the understanding and appreciation of civic responsibilities.
  - To benefit from the social and cultural diversity of our student population.
- **B. Curriculum / Instruction**
  - To provide career/technical and academic programs that are current, flexible, integrated, and adaptable and which lead to employment and/or post-secondary institutions, colleges, and universities.
  - To strengthen the ability of students to communicate effectively, solve problems creatively, and apply critical thinking skills within a complex society.
  - To provide students with positive, challenging experiences that will enhance self-esteem.
  - To provide for varied learning styles based on formal and informal diagnosis of individual student's strengths and weaknesses.
  - To encourage interactive and student-centered learning to enhance achievement.
  - To provide students the opportunity to apply learned skills and concepts to real-life situations.
  - To prepare students to be lifelong learners.
  - To develop activities for students which promote social, emotional, and physical well-being.
  - To systematically monitor the progress of all students across all areas of the curriculum, using alternative and traditional methods.
  - To develop opportunities for participation in meaningful co-curricular and extracurricular activities in school and community.
  - To adhere to state and national standards for student assessment and program evaluation data to improve continuously the school climate, organization, management, curricula and instruction to advance student learning and to recognize students who meet both curriculum and performance goals.

- **C. Support Services**
  - To provide academic and career/technical support to all students.
  - To provide a comprehensive career plan to all students.
  - To ensure that students receive guidance and counseling enabling them to deal effectively with their social and personal development.
  - To provide a structured system of extra help to enable students who may need additional support to complete an accelerated program of study.
  - To provide and support ongoing professional development for staff.
- **D. Parent / Community Involvement**
  - To present the opportunities and advantages of career/technical education to prospective students and their parents so that informed decisions can be made when choosing a secondary school and setting career plans.
  - To secure parent / community support through participation on advisory boards, school council, and parent organizations.
  - To provide students and parents the opportunities to interact through a variety of extra and co-curricular activities.

### **Statement of Philosophy**

The teachers, administrators, school committee members, and support staff of Montachusett Regional Vocational Technical School, in partnership with our students' families and the district communities, provide a progressive and safe learning environment for the intellectual and social development of every student.

The challenging career/technical and academic programs encourage individual excellence and foster the work ethics and life skills necessary to be successful at Monty Tech, post-secondary institutions, and in today's workplace. In accordance with state and national standards, we are committed to high standards of instruction, relevancy of curricula, integration of programs, and the utilization of on-going assessment to improve student achievement. To attain this ideal, we provide meaningful learning activities in and out of the classroom as well as opportunities for students to develop critical thinking, problem solving, and decision-making skills.

Creating and maintaining a positive school environment is essential to the interpersonal and social development of our diverse student body. Through a variety of extracurricular and co-curricular offerings, students are exposed to opportunities that promote teamwork, communication, and leadership skills. Comprehensive counseling and special service programs complement the academic and career/technical programs.

Our faculty members work together to ensure that every student will have the capability to be a lifelong learner in a global community. We remain committed to prepare graduates to be respectful, tolerant, knowledgeable citizens who demonstrate civic responsibility.

## **1: SCHOOL PHILOSOPHY AND GOALS**

The ten members of the School Philosophy and Goals self-study committee include representatives from both academic and trade areas. The Philosophy and Goals are clearly presented on the School Website, are printed in the faculty handbook, are posted in classroom areas and appear in the Program of Studies, although not in the student handbook. They are emphasized during functions held for potential incoming students and parents.

The Philosophy, Mission and Goals statements have not changed since those submitted in the 2006 NEASC self-study. It is the intention to update these within the near future to reflect ever-changing academic and trade standards as well as industry trends. There were a number of changes to the administrative staff in recent years, and recent emphasis has been on preparing for the decennial visit and producing a District Improvement Plan (DIP); thus the delay in producing an updated Mission Statement, School Philosophy and Goals.

It is the intention that the revised Philosophy, Mission and Goals statements will comply with the five overarching Objectives and SMART Goals in the DIP 2015-2018. The revised Philosophy, Mission, & Goals statements will reflect the school's high expectations not only for academic and trade excellence but extend to extra-curricular, co-curricular and athletic activities as well as leadership opportunities that will enhance personal and social growth and development.

The present SIP and its Objectives and SMART Goals were developed by administration, and presented to faculty and the School Committee/Governing Board for approval. The existing Philosophy, Mission, and Goals were not overlooked during the creation of the SIP, but the creation of the DIP also draws much on other requirements at the District and State levels.

It is reported that the Mission, Goals and Philosophy, though not recently modified, still meet the needs of the school. The Mission Statement is posted in every room of the school, and places emphasis on the skills and abilities of students in an "ever-changing society." The school serves a large geographic area encompassing rural agricultural communities, affluent suburbs, and urban settings with a population of approximately 40,500. The needs of the community range from traditional manufacturing (it is the largest manufacturing economy in the Commonwealth at 19.7%) to the larger state economy dominated by computer, electronics and medical equipment manufacturers. The school demographics have changed only modestly since the last accreditation in 2006.

Recent initiatives to expand course offerings, increased AP courses, dual enrollment classes with Mount Wachusett Community College which provide students an opportunity to earn college credit for courses taken at the high school, an EMT program, and a planned Veterinary Tech program are examples of how Monty Tech continues to meet the needs of the school community. The enhanced library, increased number of computers and interactive white boards all demonstrate the school's philosophy to provide the best learning environment for students. Restructuring the guidance department, holding college and career fairs, hosting mental health awareness events, and community based nights to help with college applications and financial aid process, demonstrate the school's determination to partner with families and community to prepare students for post-secondary success in a wide range of settings.

**The Visiting Team commends Montachusett RVTS on the following:**

- The Philosophy and Goals have materialized in rigorous, relevant academic and trade opportunities as well as a wide offering of extracurricular activities for personal and social growth and development.
- The Mission Statement is effectively used to support a school-wide emphasis on changing offerings and practices to meet the needs of the entire school community

**The Visiting Team recommends the following:**

- Provide all stakeholders an opportunity to contribute to the development of the new Philosophy, Mission and Goals statements.
- Publish the Statements in the Student Handbook (as well as where currently published)
- Allow all departments to provide input relevant to their specific area when developing the District Improvement Plan and SMART Goals.

## **2: SCHOOL AND COMMUNITY RELATIONS**

Montachusett Regional Vocational Technical School (MRVTS) is located in the city of Fitchburg, Massachusetts and serves 18 sending towns of diverse backgrounds in relation to population and socio-economic status.

MRVTS has established, and continues to maintain, several programs and events that promote appropriate communications and interactions with their school community. These offerings include, but are not limited to, opportunities for the public to experience and learn about the school's vocational/trade programs, including students in grades 7 and 8 who are preparing to make a decision regarding their high school choices. Services like a restaurant, a cosmetology shop and technical services are also available to citizens from the Monty Tech community. In addition, MRVTS opens its facilities, like the gym and large auditorium, for use by community groups on a regular basis.

The school's professional staff maintains communication with the community, business and industry, through individual advisory boards, membership in three Chambers of Commerce within their school district, the Monty Tech Foundation and the Monty Tech Career Center for Workforce Development. These initiatives support staff in the development of programs and curriculum that reflect current industry standards, provide internship opportunities and career development support for students and promote Monty Tech's prominence within the school district. In addition, MRVTS maintains articulation agreements with several institutes of higher education and dual enrollment in Mount Wachusett Community College. These programs afford MRVTS students a head start in earning college credits and in advancing their careers. Several of these programs and initiatives also serve as bridges between students and area business and industry.

Parental involvement at MRVTS consists of opportunities to serve on program advisory boards as well as representation on the school advisory board. Parents are encouraged to attend the various events held at the school, and to attend parent teacher nights in order to meet with staff. Other methods of communication between school staff and parents include 504 and IEP Team meetings, School Messenger and e-mail. The school utilizes the X2 grading program in order for parents to monitor student progress.

### **The Visiting Team commends Montachusett RVTS on the following:**

- Montachusett RVTS has established a solid, positive relationship with the communities within its district.
- Montachusett RVTS offers a variety of services that are available for the public.
- Community groups are afforded the opportunity to use the physical space within the school building.
- Students have ample opportunity to engage in paid and unpaid internships within the school district.

### **The Visiting Team recommends the following:**

- Continue current practices, and expand upon them as needed, in order to adapt to changes in educational and industry standards.



- **EDUCATIONAL PROGRAMS**

Montachusett Regional Vocational Technical School (MRVTS), located in Fitchburg, MA, is a regional school that serves 18 towns in Northern Worcester County. The academic curriculum, in line with MassCORE standards, offers college preparatory courses to those students who intend to pursue higher education in the form of college, university or technical schools. The school's Program of Studies offers student's academic 'pathways' to help them plan course selection based on their expected post-secondary goal. The school offers 20 technical programs based on the Massachusetts VTE framework: Auto Body/ Collision Repair, Engineering Technology, Automotive Technology, Graphic Communications, Business Technology, Health Occupations, Cabinetmaking, House Carpentry, Cosmetology, HVAC/ Property Maintenance, Culinary Arts, Information Technology, Dental Assisting, Machine Technology, Drafting Technology, Masonry, Early Childhood Education, Plumbing, Electrical, & Welding/Metal Fabrication.

The school recently completed a curriculum mapping exercise for all Math, English and vocational subjects. Related to this was the creation of Title I data teams in Math, English and Biology, the use of teacher coaches, and after-school tutoring programs. The school reports that, likely due to these initiatives, there have been significant increases in the MCAS results for Title 1 students. Curriculum development initiatives are supported by both local and grant funds at MRVTS. On an annual basis, the District reserves approximately \$5,000 in the Perkins grant for curriculum development initiatives impacting specific vocational programs. Generally, curricula are delivered in a department model with department liaisons appointed annually who provide non-supervisory management of academic/vocational areas. There is a Coordinator of Academic Programs and a Director of Vocational Programs to ensure the effectiveness of curricula and instruction. MRVTS also provides instruction for English Language Learners in accordance with state and federal regulations.

Supplementary programs include a cooperative education program that allows students to work in their trade areas during the school day. Also, the Women in Technology program enables females interested in manufacturing and/or engineering to work with professionals in those fields, and the Automotive Tech juniors participate in an 8-week job shadowing within the Automotive Youth Educational Systems (AYES) program.

There are nine (9) post-secondary institutions that MRVTS partners with for Articulation Agreements including Ben Franklin Institute of Technology, Johnson and Wales University, Newbury College, Vermont Technical College, Massachusetts Community Colleges, University of Northwestern Ohio, and New England Institute of Technology. Automotive Technology, Health Occupations and Dental Assisting and Early Childhood Education partner with local businesses within the district. House Carpentry, Plumbing and Welding/Metal Fabrication partners with local labor organizations to provide students with educational and work experiences that would otherwise be unavailable. The school has also expanded the number of Advanced Placement courses. Other opportunities - JROTC, financial literacy, career planning, for example, exist to enhance the student experience at MRVTS.

Academic teachers are contractually responsible for 13 teaching periods during the 2-week schedule. The average at present is 12. Vocational instructors who teach related are responsible for one or two preparations (depending on if it is an A or B week). The vocational staff is generally responsible for the technical preparation of one grade level. The school has a nine period day from 7:51 to 2:40. Math,

ELA, and Science classes are 82 minutes long and all other classes are 39. Numeric grades are issued on report cards four times per year. Any student who fails four or more subjects (excluding exploratory trades) in a marking term may be required to meet before a committee

The School has an attendance policy and students may lose credit if they exceed nine unexcused absences. There are processes for notification of students and parents as the number of absences approach nine and a process for appeal as well. There are posted credit requirements for grade advancement as well as an hour requirement in vocational programs for students who aim to receive a full trade diploma upon graduation.

As stated in the mission statement, MRVTS strives to equip every student with the skills and knowledge to be a productive and effective member of society. In pursuit of this goal, the School reports that the master schedule and Program of Studies are designed to meet the needs of a student population with a wide range of needs and abilities. Guidance counselors and the Special Education staff review progress reports and report cards throughout the school year. In addition to school wide progress reports, the School meets all requirements regarding the education of ELL, 504, and Special Education students. The School recently renovated the library and two science labs. Upon release from the State, Massachusetts Comprehensive Assessment System (MCAS) scores are analyzed to highlight curricular gaps and identify individual students who require mediation.

The School utilizes digital tools that focus on improved instructional practices such as literacy (Achieve) and math (Assistments). After piloting and implementation, the School reports an increase in classroom performance and state-wide testing. Based on teacher/departments requests, the use of these programs will be expanded in the summer of 2016. Also, teachers were provided with Chromebooks for the 2015-16 school year and the aim is that every student have a Chromebook by the beginning of the 2016-17 school year.

The School has a Development Coordinator who tracks all professional development exercises and maintains a log of Professional Development Points issued by the district. Faculty and staff at Montachusett RVTs have earned a total of 8,643 Professional Development Points since July 2013.

Curriculum development initiatives are supported by both local and grant funds at Montachusett RVTs. On an annual basis, the District reserves approximately \$5,000 in the Perkins grant for curriculum development initiatives impacting specific vocational programs. The district has averaged about \$260,000 in annual professional development expenditures since FY 2013.

Through the self-study and visiting team process, a few areas needing improvement were noted. One frequent issue was an increased number of students in many classes, both academic and trade, which resulted in a range of challenges from safety concerns in labs and shops to high student-teacher ratios in some classes which teachers reported affected instructional practices. Also, some academic classes are scheduled for 39 minutes which teachers felt limited their instructional effectiveness and there was a repeated call for more time for teacher collaboration both within subject areas and across academic and trade areas.

**The Visiting Team commends Montachusett RVTs on the following:**

- The School has worked to produce a course of study which is aligned to appropriate frameworks, which includes mechanisms to ensure academic rigor, which is consistent with the school's

mission, and which reflects the needs of students, the community, and business/industry.

- The School's establishment of an after-school tutoring program, MCAS support classes, and teacher coaches has helped improve student achievement on important assessments, this has yielded their highest MCAS scores to date and guarantees that every student regardless of gender, race, ethnicity or disabilities is offered a quality education.
- Vocational instructors have worked with school provided digital resources to create curriculum maps that help ensure competency-based education identifying specific duties and tasks.
- The School provides programs like the career center, JROTC, Women in Technology, job-shadowing, dual-enrollment, and cooperative education to provide co-curricular activities that enhance the students' leadership skills, self-esteem, and career awareness.

**The Visiting Team recommends the following:**

- Ensure that sufficient resources are available to support the upcoming Chromebook rollout, including technical and professional development efforts to aid in the use and availability of technology.
- Explore ways to increase the integration of academic and technical instruction.
- Increased enrollment has led to increases in class size in some areas; address areas where this has affected the delivery of instructional programs.
- Look for ways to address the frequent release of students for athletics which interferes with the delivery of instruction at the end of the school day. This especially affects classes only scheduled for 39 minutes.

## **Autobody: Collision Repair Technology**

The Montachusett Regional Vocational Technical School Collision Repair/ Auto Body Program is staffed by three full time instructors. During the visitation it was observed that all students were wearing safety glasses and respirators as required. All students were working on assigned projects as well as live vehicles brought in from the community. The instructors are all ASE certified and take pride in their program and the school. The program incorporates a competency based curriculum that follows the State of Massachusetts Framework standards as well as the NATEF program standards. The Program Advisory Committee has 17 members involved with the Auto Body program at Monty Tech and provides feedback on repair trends, technical training, co-op opportunities, and donations.

Through the self-study and visiting team process, a few areas needing improvement were noted. Program instructors report recent increases in enrollment and a limited shop area cause difficulties for effective instruction. During the visit, concerns about the need for new equipment – a need for tools to use with work with aluminum, an updated frame machine, and concern about improved ventilation for welding fumes – were also noted. Finally, instructional staff noted the need for increased storage space.

### **The Visiting Team commends Montachusett RVTS on the following:**

- Shop instructors that are all highly qualified with multiple certifications.
- The shop is well equipped with hand and power tools.
- Instructors promote a safe work environment and utilization of safety equipment.
- The shop is consistent with the latest trends and technologies utilized in the industry.
- The shop has a separate area to serve as an area to clean and detail vehicles and write estimates.
- The students are involved with a variety of quality projects and learning activities.

### **The Visiting Team recommends the following:**

- Vehicle frame machine should be replaced with state-of-the-art updated equipment.
- Additional storage space is needed.
- Address the inadequate ventilation issue with equipment to provide welding fume extraction.
- A lack of tools and equipment designated strictly for use when performing aluminum repair interfere with the instruction of this skill.
- Adjust student to teacher ratios to reflect increased program enrollment.

## **Automotive Technology**

The Montachusett Regional Vocational Technical School Automotive Technology program is staffed by three instructors who are Master Technician A.S.E. (Automotive Service Excellence) certified. The program is also N.A.T.E.F. (National Automotive Technician Education Foundation) certified and is approved by A.Y.E.S. (Automotive Youth Education System). During the visitation all students were working on live vehicles or performing hands on tasks directly related to NATEF standards. The instructors were completely involved and engaged with the students. The program Advisory Committee has over 40 members and provides feedback on the curriculum, and contacts for cooperative learning.

All students were following shop safety protocols. The shop was sufficiently lighted due to the recent lighting fixtures installed. The shop is well equipped with state of the art equipment which includes a wheel alignment machine, vehicle lifts, air conditioning servicing unit as well as various electronic diagnostic tools. This equipment provides students with the necessary training and knowledge to prepare them for working in the automotive industry.

Through the self-study and visiting team process, a need for additional storage and better use of shop space was noted.

### **The Visiting Team commends Montachusett RVTS on the following:**

- Exemplary use of technology in the shop and related theory classroom.
- The program is aligned with the NATEF task list which is aligned with the Massachusetts Frameworks standards.
- The program is approved and actively participates in the AYES initiative for placing students in co-op positions and job shadowing.
- The program Advisory Committee is extensive and serves the Automotive shop in many capacities.

### **The Visiting Team recommends the following:**

- Update tools according to industry (NATEF) standards.
- Ensure sufficient storage for training modules, tools, and general equipment.

## **Business Program**

The Business Department offers seven half-year elective courses that include Personal Finance, Freshmen Seminar, Management & Entrepreneurship, Finance & Entrepreneurship and a couple levels of Computer Literacy and Employability. The courses are designed to provide students with the tools to be successful in their academic, personal, and work lives. All of the business classes and lessons align with MA Vocational Strands 4, 5, and 6—employability, entrepreneurship, and computer literacy.

The teacher in the Business Department uses technology in her planning and teaching. A SmartBoard is used to present material using PowerPoint; lesson plans are formatted to include alignment to state standards, learning objectives, previous class goals, procedures, and grading, and students are taught how to use either Google Docs or Microsoft Office (depending on the course) to complete assignments. The instructor demonstrates creativity and initiative and uses a variety of resources, from textbooks to instructor-created assignments, and online resources. In addition, the instructor collaborates with academic instructors to determine the software skills their students need.

There is an overlap of curriculum between the Finance & Entrepreneurship class and Personal Finance. Freshmen Seminar was planned for Fall 2016 start. Beginning in the fall, this course has been recommended as a required class for all students with the exception of special circumstances. In addition, there has been talk about making Personal Finance a required elective, but no decision has been made at this point.

Directed Study, a credit-bearing class where students can work to address needs in other classes, has negatively impacted enrollment in the business classes. Students can take Directed Study and receive the same amount of credit as they do taking a regular class. Consequently, students are opting for Directed Study in place of other worthwhile electives. Before Directed Study was offered, there were two business instructors. When Directed Study was implemented, one of the business positions was cut.

### **The Visiting Team commends Montachusett RVTS on the following:**

- Every student has a computer work station to complete all class assignments.
- The instructor collaborates with academic instructors to ensure lessons are designed to improve specific computer skills needed for academic assignments.
- Student assignments are created from a wide variety of resources.

### **The Visiting Team recommends the following:**

- Review the course offerings and content to ensure effective program design and eliminate course overlap.
- Reconsider the granting of credit for Directed Study.

## **Business Technology**

The Business Technology Program at Montachusett Regional Vocational Technical School is led by two dedicated and knowledgeable instructors who provide a comprehensive curriculum which is consistent with the school's mission and reflects the needs of students, community, and area businesses. The classroom is equipped with state-of-the-art equipment; there are 44 Dell computers, two SmartBoards, one high speed color copier/printer, one black and white printer, and one color copier/printer. Both instructors believe their program needs are met and feel that there are unlimited resources for students.

The Business Technology competencies are based on the Business & Consumer Services Occupational Cluster CIP Code 520407. Communication and documentation of these competencies to the students is clear and comprehensive. For Juniors and Seniors, there are two pre- and post-tests—one in Office and one in Business Ethics & Law; for Freshmen and Sophomores, there are also two pre- and post-tests—one in Word/Excel/PowerPoint and one related to keeping financial records. The program syllabus states the overall objectives for each year in the program and the components included in determining a student's overall grade. A program-specific Business Technology Handbook provides additional information on shop rules, computer use, dress code, daily jobs, daily grades, and other general policies specific to Business Tech.

The teachers provide students with weekly job sheets which make clear the assignments and competencies for the week. The focus is on meeting deadlines and competencies. They also record daily grades which are communicated to students on a regular basis. The focus is on being prepared and following program expectations and policies. Although students are evaluated on their attitude, effort, and participation, they are not provided with rubrics for the evaluation of these areas.

Teachers utilize a variety of technology in their planning, teaching, data collection, analysis and reporting. In addition, they use a variety of instructional materials to meet the students' learning styles and ability levels. A few examples of these are as follows:

- Students participate in online training using ECourse to prepare for MOS certifications
- Formal training is provided via presentations using the SmartBoard, and informal training is provided on an as-needed basis throughout the week.
- The results of assessments may change the pace of curriculum depending on the instructor's determination of the root of the results.
- Additional resources are used for students who have special accommodations or may need to take an exam in a quieter location.

Students are provided with rewarding co-op experiences. Currently, there are 10 out of 19 students on paid co-op. Students are required to fill out a time card each week which involves recording the skills they use each day and aligning each to the CIP codes and requires a supervisor's evaluation in the form of a grade. Students who are selected to participate in co-op at the on-site Workers' Credit Union participate in formal training for one full week off campus then are provided on-the-job training by the branch manager.

Students can earn up to nine articulation credits at Mount Wachusett Community College, and six articulation credits at New England Institute of Technology. During 9<sup>th</sup> period, there is a mandatory

related class for business students during their academic rotation. This requires one of the instructors to be out of the room during shop period. Consequently, one instructor is responsible for up to 40 students in two areas of the classroom and two students working in the credit union. In addition, there is no formal scheduled prep period for either instructor. The instructors are expected to work out an informal schedule for their prep periods.

**The Visiting Team commends Montachusett RVTS for the following:**

- Clear communication and documentation is provided to students regarding daily, weekly, and quarterly expectations.
- There are a variety of opportunities for rewarding co-op experiences, and currently 10 out of 19 are participating.
- Students align skills used on a daily basis with state competencies during Co-op
- Assignments and assessments identify the standards to which they are aligned.

**The Visiting Team recommends the following:**

- Provide rubrics for the evaluation of attitude, effort, and participation, which are categories of each quarter grade.
- Ensure sufficient teacher support in the shop class during 9<sup>th</sup> period.



## **Cabinetmaking**

The Cabinetmaking program at Montachusett Regional Vocational Technical School is comprised of three teachers: two veterans and one first year teacher previously from industry. The teachers try to make the most of their limited space which is shared with the school's house carpentry program. The curriculum is aligned with the newly revised Vocational Technical Education Frameworks.

The program has a wide assortment of equipment associated with the industry (CNC machine, various saws, grinder, joiner, clamping table, and a spray booth for post-process work). Some machines appear to be moved in an effort to accommodate students during instruction. The program's instructors are proud of their challenging projects, and their students' fine work is evident throughout the building, and the communities they serve.

The program has a maximum of 18 students per grade level but at times has been asked to accept additional students because the program typically has a long waiting list. All students are members of SkillsUSA and compete at all levels. The program is currently comprised of 72 students; 19 freshmen, 18 sophomores, 18 juniors, and 17 seniors. The program includes 22 non-traditional students. Currently there are 11 students on cooperative employment. Teachers remarked that an increasing number of employers are requesting students who would consider delaying college after graduation because they are seeking career-minded cabinetmaking students.

The program has a program advisory committee which has taken a pivotal role for recommendations for improvements to the program. The instructors look to increase student and staff training on the new CNC machine with AlphaCAM drawing software. Currently only one student can use the CNC's terminal with AlphaCAM. Recently Solidworks and AlphaCAM were installed on the laptops in the school library's smart-room, which has improved the situation, but scheduling laptop use can be challenging when looking to provide consistent training required for proficiency in the operation of the equipment. Students frequently use teacher computers (in an office) to do required research for their cabinetmaking projects.

Juniors and seniors typically participate in the offsite work extension program. Related theory for all students is held in a shared classroom outside of Cabinetmaking. This is the second year of a school policy that eliminated related theory for the juniors and seniors in their academic cycle.

The program does have an articulation agreement with New England Institute of Technology's Building Construction/Cabinetmaking program for a total of ten credits.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The Program Advisory Committee's effectiveness in improving the program
- Curriculum design creates opportunities for the student to understand expectations and receive recognition for achievement and gives guidance to improve performance.
- The design of the instructional program reflects the mission of the school.
- Teachers demonstrate creativity and initiative in the delivery of the curriculum

### **The Visiting Team recommends the following:**

- Explore solutions to current space limitations that impact the learning environment.

## **Cosmetology**

The Cosmetology Department at The Montachusett Regional Vocational Technical School contains 23 production stations on the production floor and there are two classrooms that are used by the two lower grades. Often, the lower grade classes are separated and placed into the two classrooms at the same time with different instructors, which can present challenges to instructors in implementing a consistent curriculum. There is also a dispensary, storage area and restroom available to students and instructors. One liaison and three instructors work collegially throughout the department. Current enrollment in the Cosmetology Department is as follows: 21 seniors, 21 juniors, 24 sophomores and 24 freshmen. The production floor provides a busy and dynamic learning environment and the department is clean and organized.

Instructors align their curriculum to the strands as indicated by the scope and sequence and curricular expectations throughout all four years of the program. The program connects with industry through the advisory board meetings, client services, and guest artist demonstrations. The program's advisory committee has 13 members and instructors report that the committee is active and provides feedback on many aspects of the program, and have been helpful in making recommendations for the use of technology in the cosmetology program. The educational strategies have been revised to ensure that lessons and assessments align with state board, curricula, and educational standards. Technology is utilized in a variety of situations and students are aware of task expectations as indicated by the consistent use of rubrics and task sheets.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The experienced staff runs the department as a team, utilizing each instructor's unique strengths to enhance the program.
- Instructor success as indicated by a 100% state board exam pass rate.
- The School provides professional development and education for the instructors.
- The active advisory board members and community service programs.

### **The Visiting Team recommends the following:**

- Create a space for the underclassmen instructors to work together.
- Create a larger dispensary and add a student station.
- Create better storage options for kits and tools as lack of storage is currently creating a safety issue.

## **Culinary**

The Culinary Department at the Montachusett Regional Vocational Technical School is run by two co-liaisons and two instructors who oversee the instruction of culinary students as follows: 22 seniors, 25 juniors, 23 sophomores and 27 freshmen. Three instructors have earned an Associate's degree and one instructor has earned a Bachelor's degree. The department is compartmentalized into the following four areas: theory, dining, bakery and kitchen. The department is clean and organized and clear expectations and procedures are in place. Point-of-Sale software and kitchen monitors have enabled the instructors to align the curriculum with current industry practices.

Students rotate through task sheets that assure that each student has personalized access to the entire curriculum of each instructor. Students work in teams based on skill knowledge, affording leadership opportunities within the department. The dining room menu also serves as a curriculum, guiding daily tasks, and all students and instructors work towards a final product in an efficient manner. Students are OSHA certified and are tested in ServSafe. Due to a high volume of production, the instructors are able to purchase upscale menu items, increasing rigor and real-life experiences for their students. Assignments support the school-wide goals of excellence in reading and mathematics.

Through the self-study and visiting team process, a few areas needing improvement were noted. Culinary classes are large, usually over 25 students. It can be difficult for a student to have adequate time practicing a skill at this number, and given the limited space in the kitchen area, instructors report it is difficult at times to maintain an effective learning environment. Instructors also report that freezer noise makes it difficult to communicate in the nearby area.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The instructors align their curriculum to industry and educational standards.
- Instructors meet frequently to collaborate, resulting in strong leadership and instruction.
- The Culinary program establishes strong ties with the community through the advisory board, production and community service.
- The use of current technology includes a POS software system and kitchen monitors increasing technological skill.

### **The Visiting Team recommends the following:**

- Provide assistance during educational time when instructors are in related classrooms.
- Provide assistance due to larger class size.
- Currently there is limited floor space in the kitchen which causes a difficult learning environment.
- Freezer noise interferes with instruction.

## **Dental Assisting**

The Dental Assisting program at Montachusett Regional Vocational Technical School has two female instructors; both have been here for 10 years. The program currently has a total of 59 students. There are 17 freshmen, 12 sophomores, 16 juniors, and 14 seniors. There are 53 females and 6 males in the program. There are two students currently enrolled in the Cooperative Education program (one junior and one senior).

The students will get their CPR certification during their freshmen year and during their senior year they will get their professional rescue CPR certification. The students in the dental assisting program take two national exams; an infection control exam during their sophomore year and a radiology exam during their senior year. There is also an articulation agreement with Mount Wachusett Community College which can give students college credits when accepted into the college's program. Students have frequent opportunity to engage with the larger community through attending dental conferences, making presentations on dental health to local schools, and involvement in a local child dental identification program. The program's advisory committee has 19 members – representing all types of dentistry practices - and provides feedback on new technology in the field and needed curricular changes. They also work with program instructors to provide opportunities for externship and cooperative education placements for students. Program staff reports that the Advisory Committee is a valued part of the program.

The teachers have recently updated their curriculum framework and added it onto a computer database. The teachers have created a very thorough curriculum which includes objectives, standards, procedures, reinforcement activities, evaluations, textbooks (if needed), and rubrics. The teachers utilize a variety of teaching methods and strategies in their lesson delivery.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The Dental Assisting instructors are highly knowledgeable, dedicated, and experienced.
- The strong communication and support from the local dental community.
- The program has a rigorous curriculum.
- The program keeps their equipment at a high level of maintenance.

### **The Visiting Team recommends the following:**

- Provide opportunity for students to gain experience working with expensive equipment (ex. laser, crown milling machine, panoramic X-ray machine) to align with curriculum framework
- Provide more storage for supplies
- Provide more space for more equipment

## Drafting

The Drafting program at Montachusett Regional Vocational Technical School is comprised of two veteran teachers, one male and one female – both alumnae. The teachers make the most of their space with various pieces of equipment and open storage placed along perimeter of room.

The program has three distinct areas; (18) CAD stations with dual monitors, (18) unique workstations that include a full size drawing board with mechanical arm along with a fully functioning CAD PC. Positioned between the workstations are a group of rectangular tables that are used for modeling projects. Related theory classes are held in available classrooms away from Drafting.

The program is currently comprised of 60 students; (9) freshman, (18) sophomores, (15) juniors, and (18) seniors. Six students are currently on co-operative education (five seniors and one junior).

For the past two years the teachers have flipped the academic related period for seniors (after freshman placement) by having them come to Drafting for additional Revit (architectural software) instruction while a vocational specialist takes the freshman for non-computer work in the related room. Students are also introduced to and complete several projects using the program's Dimension Elite 3D printer. The program's curriculum is aligned with the newly revised Vocational Technical Education Frameworks. Students can access the course syllabus, the weekly syllabus, classroom notes and assignments through the teacher's Google classroom. The teachers recently posted the program's scope and sequence using the schools Atlas-Rubicon on-line software. Students have the opportunity to obtain industry certifications (Solidworks CSWA) and Autodesk certifications (AutoCAD, Inventor, Revit, or AutoCAD Architectural) which are currently paid through a yearly Perkins grant.

A recent school-wide renovation has affected the layout and size of the area allotted to the program. The shop area no longer has student restrooms; staff reports that the present classroom space is not large enough for the number of students, and a need for more storage space. They also expressed concern about the loss of a second doorway to the shop area, especially, given the room layout, in the event of egress during an emergency.

The program has the following articulation agreements;

- Statewide Articulation Agreement for one or two (depends on major) CAD courses
  - Fifteen Massachusetts Community Colleges.
- New England Institute of Technology
  - Architectural Building Engineering Technology
  - Interior Design Technology
  - Manufacturing Engineering / Mechanical Design
- Vermont Technical College
  - Architectural and Building Engineering Technology

### **The Visiting Team commends Montachusett RVTS for the following:**

- Teachers offer a carefully planned curriculum in a well-structured format.
- The vast majority of students pass available industry certification tests.
- Teachers demonstrate creativity and initiative in the delivery of the curriculum.
- The evaluation of the assessment of student performance is reviewed periodically to measure student achievement, to improve curriculum, and to impact planning and instruction.

**The Visiting Team recommends the following:**

- Address the concerns of classroom space, storage, and access/egress caused after recent renovations.
- Continue to include in the upcoming new technology plan provisions for professional development for new technology as it is mainstreamed within the school.

## **Early Childhood Education**

The Early Childhood Education program at Montachusett Regional Vocational Technical School (MRVTS) currently has an enrollment of 62 students and is staffed by two full time teachers. One teacher has been at MRVTS for 26 years and is working towards her Master's Degree in Early Childhood Education, and the other is in her second year at the school. She holds a Master's Degree in Early Childhood Education, and has several years' experience in teaching Early Childhood Education prior to joining the faculty. The on-site child care center employs two full time teachers, both of whom are graduates of the MRVTS Early Education program and who are licensed through the Massachusetts Department of Early Education and Care. The child care center is a year-round program, with hours of operation from 7:00AM to 5:00 PM. The center currently is licensed for twenty children ranging in age from 2.9 years to 5 years.

There are 17 students in grade 9 who visit the child care center one morning a week for approximately 1 ½ hours. As first-year students, this time is primarily an opportunity to observe children within a learning environment. The remainder of time for freshmen is spent in the Early Childhood Education classroom, with a combination of direct instruction from teachers and project-based learning.

There are fifteen students in grade 10 who rotate in and out of the on-site center for four hours per week. Similar to freshmen, the remainder of their time is spent in the Early Childhood Education classroom. While the model of instruction/project -based learning is similar to that of grade nine students, the content is more complex in order to expand learning.

In the junior and senior year, students have opportunities to work in programs outside of the on-site childcare center. The Early Education program has affiliations with six child care centers within the School's district. One Early Education instructor visits off-site centers to observe students as they work with children, and provide feedback. Students in grade 11 work in the on-site center for approximately 5 ½ hours every other week, and work in off-site centers in unpaid internships. In addition, there are currently five juniors who are working in off-site co-op jobs and one junior working in a paid position in the on-site program. Students in grade 12, while in the classroom, work on their Senior Portfolios. There are currently four seniors working in co-op positions, and one senior working in a paid position in the on-site program. Students in grades 11 and 12 attend related theory class one period per day during their academic week. Upon graduation from the Early Education Program, exemplary students may apply for the Child Development Associate's Credential through the Massachusetts Department of Early Education and Care.

Access can be obtained to the courtyard where the play space is located through a hallway in the vicinity of the Early Education program. Once inside the courtyard, it is possible to gain entry into the Early Education classroom and, ultimately, the child care center.

The instructors in this program have created a comprehensive curriculum that fulfills the requirements as set forth in the Massachusetts VTE Frameworks. Assignments include rubrics that are clear and concise in their expectations, and are intended to promote a high level of achievement. The Atlas program for curriculum mapping, which aligns to the Frameworks in order ensure that standards are met, is used. While this instruction and project-based model is effective in supporting students in learning specific concepts, more hands-on experience for students is necessary in order to truly acquire the skills that are necessary to effectively work with young children. In addition, it is essential for Early Education

teachers to have the opportunity to model skills and techniques for their students, and the current format does not allow for such modeling, as the teachers do not work directly with the children in the school's child care center. The classroom does include an observation room, which is also used for storage, and there is a plan to rebuild and add cabinets in order to facilitate storage. However, the room is not equipped for sound, which does not allow students to hear interactions between teachers and children while they are observing. Without sound, it is difficult to accurately observe and reflect upon children's interactions with teachers and one another.

**The Visiting Team commends Montachusett RVTS for the following:**

- The Early Education teachers are highly qualified and dedicated.
- The teachers establish and maintain a positive, appropriate rapport with students.
- The curriculum is comprehensive, identifies clear expectations and meets the Massachusetts VTE Frameworks.

**The Visiting Team recommends the following:**

- Develop and implement a plan that will provide students with more opportunity to work within the on-site child care center.
- Create opportunities for Early Education teachers to model skills and techniques through direct work with children in order to enhance instruction.
- Follow through with the plan to rebuild and add cabinets in the observation room
- Equip the observation room with sound to enhance observation and instruction.
- Secure the doors that lead to the courtyard where the children's outdoor play space is located to prevent unauthorized personnel from having access to children's areas.



## **Electrical**

The Electrical Shop at Montachusett Regional Vocational Technical School is comprised of four instructors, one department liaison, and three instructors that are all licensed and well qualified in their field. The department consists of 88 students - 19 freshmen, 24 sophomores, 24 juniors and 21 seniors.

The shop was found clean and well organized. The shop was divided into an upper classman area as well as an underclassman area. The department conforms to the curriculum mandated from the state. Students earn their 10-hour online O.S.H.A Construction safety certification in their freshman year and another 10-hour O.S.H.A course in their sophomore year. The electrical students achieve 240 theory hours toward their journeyman's license. There are currently nineteen students out on Work Based Learning - nine juniors and ten seniors.

Program instructors reported that in 2005-06, when related instruction was removed from sophomore year, this move decreased the number of related instruction hours from 150 to 120 per year. There is a concern that this decrease has had a negative impact on students earning credit towards their journeyman's license. They also reported that there was a lack of storage space within the department area, despite recent remodeling which addressed at least some of the concerns about space available to the department.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The program offers a clean and bright work area for the students.
- The use of updated NEC and other electrical resources.
- The maintaining of a relatively well-equipped shop.
- Safety instructions and procedures are in affect.
- The means to aid students to obtain future licensing and job employment are in place.

### **The Visiting Team recommends the following:**

- Provide the necessary storage space for materials and tools.
- Examine the impact of students receiving 120 hours of related instruction to their earning credit towards their journeyman's license

## **Engineering Technology**

The Engineering Technology Department at Montachusett Regional Vocational Technical School is comprised of two instructors. Both teachers have obtained preliminary vocational teaching licenses and are currently working toward their Massachusetts professional vocational teaching licenses. The instructors are exceedingly qualified to teach at a high school level; their combined industry experience totals 85 years. One instructor holds a PhD in electrical engineering and has worked at the MIT Lincoln Labs. The second instructor has an Associate's Degree in mechanical engineering and a Bachelor's Degree in civil engineering. The engineering program consists of forty-eight students: eleven freshmen, ten sophomores, fifteen juniors, and twelve seniors. The current program evolved from what was formerly the electronics shop, a change brought about by frequent input from surrounding industry.

Typically, students do not take part in cooperative learning programs since placement is difficult and positions are limited to post-secondary students. However, many of the students in the program make the progression to colleges and universities to concentrate on engineering or related majors. Within the program, students are constantly exposed to hands-on and activity-based projects. These intriguing projects are heavily integrated with technology and greatly promote efficient problem solving; this was quite evident while students in the shop demonstrated various robotics projects.

The shop appears similar to a computer lab. It is very well kept and clean. They have recently received new flooring and a new ceiling. New equipment also accompanies the recent renovations. The instructors were very thankful for the new additions of a bench mill, 3D printer, large work bench, and SMART board.

The curriculum for the engineering department is directed by Project-Lead-The-Way and the Massachusetts state Chapter 74 frameworks for Engineering Technology. Additions to the curriculum occur based on instructor experiences and expertise as well as recommendations from the advisory board. They incorporate a basic safety curriculum for the various tools used for hands-on projects. During freshmen year, students receive general OSHA-10 training. Also, students compete in Skills USA in categories such as mechatronics, robotics, urban search and rescue, and principles of engineering.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The focus on training and encouragement to develop problem solving skills.
- Students proceeding on to colleges and universities.
- Hands-on and activity-based projects are integrated into technology.
- Through creative use of instructional practices, students are extremely motivated and self-driven.
- Successful participation in Skills USA including a national gold medalist team.

### **The Visiting Team recommends the following:**

- Continue to expand the diversity with the advisory committee.
- Expand the program to offer a wider variety of engineering fields.
- Obtain new equipment to support implementation of new CIM curriculum.
- Air condition the shop because the computers generate significant heat and create uncomfortable working conditions.

## **English/Language Arts**

The English program at Montachusett Regional Vocational Technical School is comprised of 11 highly skilled MA DESE certified instructors. The ELA curriculum is carefully planned and aligned to state frameworks. Curriculum and courses reflect the changing needs of the students who plan positive placements by going directly to the workforce, on to college, or by enrolling the military. The ELA program offers a technology plan for both students and teachers which is consistent with school wide objectives. The technology plan is supported by professional development and teachers utilize available technology in their planning, teaching, and data collection, analysis and reporting. With guidance of their department liaison, the English program has created and implemented standardized student assessment measures. The school is responsive to needs of growing college bound population. In the last 3 years Montachusett Regional Vocational Technical High School has added Pre-Advanced and Advanced Placement Courses and the District offers after school SAT prep courses. The English Department works as team to develop curriculum and to implement instructional strategies that meets the needs of all learners. Student performance is reviewed periodically to measure student achievement, to improve curriculum, and to impact planning and instruction.

The faculty reports a number of areas of need. The English classrooms are not contiguous to each other and some teachers have to travel some distance to access resources and storage for department materials is not sufficient. Increased number of students and new course levels have increased the number of class preparations for department teachers. Also, the school's progress in the areas of digital technology implementation, curriculum mapping, and Title I instruction have created a need for additional support, collaboration time, and professional development for department faculty.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The school maintains a team of dedicated and well trained MA DESE certified teachers.
- Program staff continues to increase the number of students who score Advanced on MCAS.
- Program staff uses technology to provide and support instruction, and creates opportunities for students to use technology during instruction and assessment.
- The school utilizes data-driven feedback from team generated formative assessments, and uses data as a guide to adapt curriculum and instruction.

### **The Visiting Team recommends the following:**

- Reevaluate how and where technology is applied, and support new technology with PD.
- Examine how increased class size may be impacting instruction.
- Create school day opportunities for an ELA professional learning community to meet to refine curriculum, develop assessments, and analyze data from given assessments.
- Provide more instructional support in CP-2 Courses.

## **Graphic Communications**

The Graphic Communications shop at Montachusett Regional Vocational Technical School has three instructors with one instructor as the department liaison. Two of these instructors are alumni from Montachusett. The program currently contains a total of 90 students which consist of 24 freshmen, 22 sophomores, 22 juniors and 22 seniors. Out of the 90 total students there are 51 females. The shop has recently increased the number of students it will take from 22 to 24. The shop is large with several areas to perform different tasks. The shop has adequate lighting and power and is clean and well organized. The center of the room is used for theory. There is a separate room for computer work that is totally separate from the main shop area. The main area is used to perform production work. The Graphics shop is busy with numerous outside production projects for non-profit companies in the area. All instructors will teach all classes throughout the year.

Because of the layout of the shop it can be difficult to have theory and especially during exploratory when there is production work going on. The shop could use another wall that will separate the areas to increase productivity and strengthen the learning environment.

### **The Visiting Team commends Montachusett RVTS on the following:**

- Students are very active in Skills USA and the shop consistently has students from 10 through 12 competing yearly.
- The Graphics program consistently recruits highly motivated students and has a high retention rate with many students staying in the trade.
- The Graphics program supports the community via projects for non-profits in the area,

### **The Visiting Team recommends the following:**

- Design and implement a new shop layout that would provide a more conducive learning environment.
- With the increased number of students being accepted, there is a need for additional support for the shop.
- Implement Advisory Committee recommendations for updated equipment, for example, a digital press.

## **Health Occupations**

Health Occupations has a staff consisting of four registered nurses; there is a maximum enrollment of 27 students per year. The department liaison has a Masters in Vocational Education. Two other instructors have earned their BSN. Collectively, the Health Occupations faculty has one CPR instructor, two Advanced Cardiac Life Support (ACLS) certification holders, one Pediatric Life Support Certification holder, and two members are certified Medical Assistants. It is not uncommon for Health Occupations to fill positions with first choice students and maintain a waiting list.

The department meets the Philosophy, Mission and Goals of the school by providing a dynamic curriculum, taught by highly qualified instructors, which fosters high achievement, critical thinking and successful placement at institutions of higher learning and the workplace.

Student work is prominently displayed, and students freely express their pleasure in being part of the Health Occupations Department.

The department has five distinct, well organized, adequately equipped teaching areas consisting of 1) a traditional skills lab with five hospital beds, sufficient supplies and appropriate equipment 2) theory room with 30 available Apple laptops on a portable cart, and a SmartBoard, 3) Exam room with EKG equipment, Vital sign machine and wall mounted ophthalmoscope/otoscope, 4) Simulation Labs with control center, 4) Well equipped theory room with desks and activity tables and 5) a newly remodeled theory/activity room with SmartBoard, adequate storage and required supplies and equipment for theory and skills practice.

At this time, two essential pieces of equipment are not in working order, but a request has been made by the department liaison to have the items repaired or replaced. Grant funds have allowed for the creation of state-of-the-art Simulation Lab with both adult and child simulation units, a control room with two-way mirrors to allow for unobtrusive observation and assessment, cameras for evaluation and teaching, two new vital sign monitors, office ophthalmoscope and otoscope, IV poles and IV pumps, all making the Simulation lab areas as authentic as possible.

There are contracts and articulation agreements with many health care facilities within the community encompassing settings which range from Skilled Nursing Facilities to medical offices, out-patient clinics, assisted living, child care, and home health care agencies. Clinical settings for high school Nurse Assistant students are increasingly difficult to obtain and there is a need to increase the number of clinical site options. Transport of students to clinical sites may need to be examined to allow for broader access to more remote clinical facilities.

Students who successfully complete the requirements for each of the three offered branches of study (Certified Nursing Assistant, Medical Assistant and EMT-B) have the potential to graduate with all three state certifications as well as eight college credits earned by successful completion of the EMT-B course taught at Monty Tech by Mount Wachusett Community College Faculty. Seniors have the option of participating in COOP or the EMT-B program. Students must be 18 to sit for the Medical Assisting Exam and have two years from the completion of the requirements to sit for the exam. Students also receive certifications in CPR/First Aid, and OSHA 10.

A concern expressed by faculty is recent drop in pass rate on the American Red Cross Nurse Assistant Certifying Exam. Faculty has expressed a concerted effort to examine the reasons for this drop and to examine possible curriculum/strategy changes to address areas most in need.

To maintain rigor and relevance, the department undergoes annual review and re-authorization by the Mass. Department of Public Health for the Certified Nursing Assistant program. The Medical Assistant program is reviewed and re-authorized every two years by the National Health Career Association.

**The Visiting Team commends Montachusett RVTS on the following:**

- The state-of-the-art Simulation Labs are an exceptional addition to the Health Occupations department and greatly enhances the department's ability to provide a very authentic interactive learning experience for students.
- The department provides the opportunity for students to earn three separate health care certifications prior to graduation, which helps to improve students' standing in an increasingly competitive society.
- Students have a high rate of placement in health related programs at colleges and universities.
- Students have a high rate of participation in COOP and post high school graduation employment in health related specialties.

**The Visiting Team recommends the following:**

- Repair or replace essential pieces of equipment for the Medical Assistant program (EKG monitor/recorder and Autoclave,).
- Create and implement a plan to transport students to more distant Skilled Nursing Facilities in order to provide additional and varied clinical experiences.
- Examine the reasons behind the lower pass rate (100% to 70%) on the American Red Cross Nurse Assistant Certifying Exam and review existing curricula and strategies to address areas most in need.

## **House Carpentry**

The House Carpentry program at Montachusett Regional Vocational Technical School is led by three quality instructors. Two of the veteran instructors are responsible for the offsite house project, while the other instructor is responsible for underclassmen in the carpentry shop area. The inside instructor focuses on fundamentals of the trade, and makes excellent use of the undersized shop area. Students on the outside job have constructed two houses this year, each approximately 1500 square feet. This method of instruction allows students to become familiar with all phases of construction, while focusing on safety, teamwork, and professionalism. There is also interaction with other construction trades during the construction process. House Carpentry instructors are assisting with the planning and construction of the new Veterinary Tech Clinic at the school. One of the senior members of the department will actually act as Project Manager. The students will be an integral part of the process.

Students in grades 9 and 10 learn the basics in preparation for the House Carpentry project. The House Carpentry student population consists of traditional and non-traditional students. There are 15 seniors, 18 juniors, 18 sophomores, and 18 freshmen. There are 18 non-traditional students in the program. The shop is laid out in a manner which allows for safe navigation and constant instructor input and assessment. Students appeared to be well prepared to complete the assigned projects. The House Carpentry curriculum is aligned with Massachusetts standards, and the students appear to demonstrate appropriate competence at each grade level.

There are currently six students partaking in cooperative education, and employed by various local construction firms. Students worked in safe and efficient manner, as they went about their activities, and interacted with instructors. At the end of sophomore year, each student becomes OSHA certified.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The House Carpentry program is a benefit to the community, largely by their outside house project constructed for the nonprofit corporation, Montachusett Enterprises.
- The House Carpentry program continues to prepare students to compete in multiple Skills USA contests.
- The varied means of assessment, data collection, and clearly communicated student expectations, were evident throughout the program.
- The related theory lessons are creatively taught throughout the school year by shop instructors, despite space and time constrictions.

### **The Visiting Team recommends:**

- Find additional space for underclass students.
- Increase related theory support to better prepare students for Skills USA participation and success in their respective career area.

## **HVAC/Property Maintenance**

The Heating Ventilation Air Conditioning and Refrigeration and Property Maintenance Shop at Montachusett Regional Vocational Technical School is comprised of three instructors. The department consists of 63 students, 9 freshmen, 18 sophomores, 19 juniors and 17 seniors.

This shop is very unique because of the various vocational jobs the students are taught and perform. A wide range of skills - technical drawings, building repair and alteration, building and ground maintenance, record- keeping and client relations, energy efficiency and green building technologies and HVAC fundamentals and refrigeration principles – are taught to students in the program.

The shop was found clean and well organized. The shop was divided into an upper classman area as well as an underclassman area. The department conforms to the curriculum mandated from the state. Students earn their 10-hour online O.S.H.A. Industry safety certification in their sophomore year and achieve their Federal E.P.A. 608 refrigeration certification in the senior year. There are currently 13 students out on Work Based Learning, 6 Juniors and 7 Seniors.

Program instructors report a need for more storage space and that the lack of a dedicated theory room is a barrier to effective theory instruction. One other concern noted is an aging air-filtration system which results in learning environment less clean that the instructors would like.

### **The Visiting Team commends Montachusett RVTS for the following:**

- Maintaining a clean bright work area for the students
- The use of computer aided testing for the E.P.A Certification.
- The online instruction and study guide.
- The instructional materials address a variety of learning styles and ability levels.

### **The Visiting Team recommends:**

- Provide access to laptops for the students.
- Provide access to a classroom for their related class.
- Provide a storage container for their materials



## **Information Technology**

The Information Technology shop at Montachusett Regional Vocational Technical School has two instructors with one instructor as the department liaison. The program currently contains a total of 63 students which consist of 19 freshmen, 20 sophomores, 12 juniors and 12 seniors. Out of the 63 total students there are 4 females. The program offers its students the ability to earn industry certifications for all students and co-op opportunities for juniors and seniors. Students cover a diverse list of topics in their four years. The shop is setup with distinct sections for each class and a hardware lab. It is a room with adequate lighting, computers and power. The shop also offers help desk support for the school. This area is separate from the class areas and is manned by a student. The lab space can be distracting because of the noise from the lab and other class space. Also there is a conference room adjacent to the shop which adds to the noise distraction.

Students in the Information Technology shop successfully compete in a wide range of competitions throughout the year. They are also very active in the community designing web pages and computer support for non-profit companies. They have recently expanded the number of students the shop will take from 18 to 20.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The IT curriculum is current and well-rounded mirroring industry needs.
- Students compete and win many different state and national competitions.
- Every student earns at least one industry certification, for example, A+ and Cisco.
- The school will be adding A.P. Computer Science Principles to the Information Technology program.
- Seniors are consistently out on Co-Op jobs.

### **The Visiting Team recommends the following:**

- Address classroom noise and distractions from an adjacent conference room that interfere with teaching.
- Explore how to add or maximize the use of space as the number of students has increased as will the amount of equipment related to the program.
- Increase the number of certification vouchers to allow students to earn additional industry certifications.

## **Junior Reserve Officer Training Corps**

The U.S. Marine Corps Junior ROTC program at MRVTS serves about 180 students and has two instructors, both retired U.S. Marines. The courses are offered to all four grade levels as an academic elective and students take on the class on the academic cycle. Students may take the course for one or more years; there is no pre-requisite to take classes in the later years, but students who do take the class all four years are eligible for increased military pay benefits if they chose to enlist in a branch. Also, students who take the class get a credit for Physical Education as physical training is part of the course curriculum as well. Students receive free uniforms and classroom materials and the instructor and curriculum is certified by the U.S. Marine Corps.

The program has been successful in growing its enrollment since the last decennial visit, increasing the number of students participating by over 100. Naturally, space is at a premium within the area, and more storage is needed. The program is extremely active after-school and on weekends with training sessions, community service, and field trips. Especially notable is an emphasis on community service, with over 4200 hours of community service performed last year, and a nationally recognized CyberSecurity team. A final accolade is reserved for the program's commitment to National Education for Assistance Dog Services (NEADS), an initiative that provides disabled veterans with service dogs. The school's JROTC chapter last year raised over \$25,000 and spent countless hours in providing a local veteran with a service dog.

### **The Visiting Team commends Montachusett RVTS for the following:**

- A proven commitment to community service
- The nationally recognized cyber security team.
- The use of afterschool and weekend time to promote student growth

### **The Visiting Team recommends:**

- Continue the outstanding commitment to community service.
- Explore solutions to solve storage area problems.

## **Machine Technology**

The Machine Technology program at Montachusett Regional Vocational Technical School serves 58 students from freshman exploratory to senior year. Current enrollment in the Manufacturing program is as follows: 12 freshmen, 15 sophomores, 15 juniors, and 16 seniors. There are 57 males and one female enrolled in the program. The shop and related areas are well-lit, clean, and organized, and are conducive for a stimulating learning environment.

The three instructors all adhere to the school's philosophy and goals and follow the Massachusetts State Frameworks. The instructors have created an environment that stresses real-life application of practical knowledge. The instructors collectively created the instructional materials and projects for 9th grade through 12th grade based on the competency-based curriculum provided by the state of Massachusetts. Each instructor is responsible for teaching additional trade-related subjects: related math, blueprint reading, CNC programming, CAD and CAM. Curriculum is being updated to improve theoretical knowledge pertaining to manufacturing theory and new manufacturing processes. The projects are competency-based and students have a clear expectation of learning goals and grading procedures. Learning objectives and student expectations are clearly defined and posted. Students are aware of all grading rubrics.

The Manufacturing program offers a diverse set of projects and instructional materials for all grade levels that meet current employment demands. All students go through a continuous safety program beginning in 9th grade and continuing through grade 12. There is a high expectation for all students to be successful. The students are introduced to tools, machines, and skills used in local industry.

Benchmark tests are utilized during the school to assess expected student outcomes. Instructors are provided IEPs and/or 504 plans to assure that each student is meeting his or her full potential. Upon completion of the Manufacturing program, students have attained a variety of skills in the areas of expertise to enter the workforce.

The Manufacturing program provides additional education and employment opportunities for their students through job shadowing, internships, and cooperative education activities. Cooperative education activities take place during the student's' junior and senior year. Students also compete in Skills USA contests. The Manufacturing program currently has articulation agreements with two local colleges; Quinsignamond Community College and Mount Wachusett Community College. Students are strongly encouraged to continue their education in institutions of higher learning.

The Manufacturing program has an active Program Advisory Committee. Meetings takes place twice during a school year and are well attended. The committee recommends equipment needs, facility needs, and advises on industry trends. Members are available during the school year to aid in recruitment of additional advisory committee members, and guide and advise program instructors. The Chairman of the Advisory Committee reports to the School Committee of Montachusett Regional Technical School to ensure the program meets current state and local industry standards, and to recommend technology improvements that will benefit the needs of the students and community.

**The Visiting Team commends Montachusett RVTS for the following:**

- Developing a strong Advisory Committee that is fully integrated into the teaching and learning process.
- Building strong partnerships with local companies.
- Placing students in diverse manufacturing career paths.
- Instructors participate in continuing education to stay abreast of current trends in technology.
- Instructors have created a strong educational environment in limited space.

**The Visiting Team recommends the following:**

- Create a repair and replace equipment plan.
- Expand the shop footprint to accommodate additional equipment and dedicated theory room.
- Secure additional storage containers for materials and tools.
- Expanding the articulation agreements with local colleges.

## **Masonry**

The Masonry program at Montachusett Regional Vocational Technical School is staffed with three masonry instructors. The senior instructor has been teaching for over a decade, and handles outside community based projects. The junior instructor is completing his second year of teaching, and is also involved in outside projects. The veteran underclassmen instructor is also the masonry department liaison. The three instructors work well together and share responsibilities, related to instruction and curriculum development. The highlight of the year for the masonry shop is the annual open house display. Each year the students construct a different project, such as a castle, miniature golf course, or a light house. Open house offers an opportunity for underclassmen and upperclassmen to work as a team, and demonstrate competence in their career area. Students and instructors in the masonry program are actively engaged in Skills USA competitions, and are long standing members of the Massachusetts Trowel Trades organization. Each of these organizations/competitions, allow students to gauge their individual levels of competence, in comparison to their peers around the state.

The Masonry student population consists of both traditional and non-traditional students. There are 17 seniors, 19 juniors, 16 sophomores, and 14 freshmen. There are 13 non-traditional students in the program. The shop was well organized and students seemed to be legitimately interested in the assigned work. A sense of pride was evident, as students displayed their projects. The masonry curriculum is aligned with Massachusetts standards, and the students appear to demonstrate competence at each grade level. There are currently six students partaking in cooperative education, and employed by various local construction firms. Student safety is paramount in the Masonry shop and each student is OSHA certified by the end of their sophomore year.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The work environment is safe and welcoming.
- The high student participation in community based projects.
- The instructors are accessible to students, utilize appropriate assessment methodologies, and communicate clear cut expectations for student learning.
- The instructors maintain membership in the Massachusetts Trowel Trades Organization.

### **The Visiting Team recommends the following:**

- Store masonry materials in a clean, accessible and dry location.
- Provide additional support in the masonry shop to benefit the students during theory support and practical training, to enhance student safety, and to allow for more one on one instruction.

## **Mathematics**

The Math program at Montachusett Regional Vocational Technical School is comprised of 12 math instructors. The program is based on a full inclusion model. The Math curriculum is carefully planned and aligned to state frameworks. Curriculum and courses reflect the changing needs of the students who plan positive placements by going directly to the workforce, on to college, or by enrolling in the military. The Math program offers a technology plan for both students and teachers, which is consistent with school wide objectives. The technology plan is in the last year of its three-year plan and in the beginning of developing a new plan supported by a technology subcommittee as well as the school committee and the administration. With guidance from their department liaison, the Math program has created and implemented standardized student assessment measures.

The Math department works as team to develop curriculum and to implement instructional strategies that meets the needs of all learners. Student performance is reviewed periodically to measure student achievement, to improve curriculum, and to impact planning and instruction. Incoming freshmen are tested and placed in math classes according to placement test results, 8<sup>th</sup> grade math class, 8<sup>th</sup> grade course average at midterm and their sending school's recommendation.

Montachusett Regional Vocational Technical School offers a math club; Mathletes attend competitions around the Worcester area. This allows students a chance to participate at many higher-level competitions. The Math department also offers a project that directly integrates the math curriculum into the vocational classes via "the slope project." This was required of all students in the school and had students bringing math from the classroom into their vocational classes. The school offers a data team who assess students using the previous year's MCAS data to prepare for the upcoming test sophomore year as well as students at risk for failing.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The math teachers work hard to align the curriculum to state standards.
- The teachers use technology to provide and support instruction and create opportunities for students to use technology during instruction and assessment.
- The math teachers do a very good job at differentiating instruction for all students by analyzing data from a variety of assessments and using it to drive instruction

### **The Visiting Team recommends:**

- Provide more common planning time.
- Allow more flexibility for teachers to access courses to meet their professional status as there are no local college offerings.
- Improve communication to the parents concerning course placement, especially Title I Math.

## **Physical Education**

The Physical Education department at Montachusett Regional Vocational Technical School (MRVTS) is comprised of two instructors, one male and one female. Physical Education is a mandate by the state of Massachusetts for all four years. However, if the student fails he/she is not required to make up the failure. Health curriculum is embedded in the physical education course. The curriculum at MRVTS adheres to the Massachusetts Curriculum Framework for Physical Education and Health. All physical education courses are half-year courses. Juniors and seniors are given the opportunity to take an elective (Pilates, Personal Fitness, or Group Exercise) instead of general physical education. There will be an addition of Yoga through the Arts to the elective selection in the 2016-2017 school year. This will be a great way to embed the arts at MRVTS because there is no art program.

The Physical Education staff is very knowledgeable in content matter and adapts lessons and curricula to best fit the needs of their students. The evaluation process is based on SMART goals the teacher creates, then gives assessments, and finally analyzes data. There is no state required or presidential fitness test given in Massachusetts.

The faculty reported a number of concerns, largely related to the age of P.E. and athletic facilities – a need for improved locker room security and conditions, addressing problems with outdoor facilities and especially the outdoor track.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The PE staff is highly qualified and competent.
- The diverse curriculum promotes lifetime fitness for students.
- The school administration supported the implementation of yoga in the Fall of 2016.

### **The Visiting Team recommends:**

- Making sure gym doors are able to be locked.
- Finish the renovation of the girls' locker room
- Address geese issue on outdoor fields.
- Improve proper drainage on outdoor fields.
- Ensure the surface of the outdoor track is safe for student use.

## **Plumbing**

The Plumbing Department at Montachusett Regional Vocational Technical School is comprised of four Massachusetts State Licensed Vocational Technical Educators. The four instructors hold both Massachusetts Journeyman and Master Plumbing Licenses. Additional licenses amongst the instructors include oil burner's licenses, a pipefitting license, a sprinkler license, and a universal refrigeration license. The program consists of 75 students: 19 freshmen, 19 sophomores, 18 juniors, and 19 seniors. Two of the four instructors typically direct the upperclassmen students on off-site projects. Eligible students are placed in cooperative learning programs during their shop weeks and currently two juniors and eight seniors have been placed in co-op programs. Students are frequently engaged in off-campus housing projects around the community. Both the students and the instructors in the Plumbing Shop radiate a professional attitude and demeanor.

The shop is very well organized for the relatively small area where the program is situated. Wood-framed booths and tables are utilized for student projects within the shop. These independent work areas allow students to progress with projects at their own pace. The lighting and ventilation within the shop helps maintain a safe and healthy atmosphere. Materials such as pipe and fittings are placed neatly into bins and onto racks to ensure organization. One men's restroom is found within the shop. The related classroom is detached from the shop and shared with other programs.

The program curriculum follows the Massachusetts State Plumbing Frameworks set forth by the DESE. In addition, instructors incorporate information from the Plumbing-Heating-Cooling Contractors Association (PHCC) as well as the Massachusetts State Plumbing and Gas Fitting Code. Changes within the trade, code modifications, and advice from the Plumbing advisory board are also incorporated into the curriculum. Students are provided with OSHA-10 training during their sophomore year. Instructors utilize competency tracking to ensure students have been exposed to the necessary information needed to excel in the trade. Based on their backgrounds and work experience, the four instructors exhibit immense versatility, which allows them to thoroughly interpret and relay complicated theory and code information. Upon completion of the program, students are credited with two (220 hours) of the necessary five tiers (550 hours) of classroom hours needed to fulfill apprenticeship requirements.

### **The Visiting Team commends Montachusett RVTS on the following:**

- The shop is extremely well equipped with new machines, power tools, and hand tools. This is made possible by the program's adequate budget and supportive advisory board.
- The versatility amongst the instructors is fantastic. Their vast work experience and residential and commercial plumbing backgrounds offer students a wide variety of instruction.
- The program provides a solid cooperative learning placement. Students have many options in the area to work for employers during shop weeks and school vacations.
- The students obtain real-world experience doing both off-campus and on-campus projects.



**The Visiting Team recommends the following:**

- Explore the addition of, or more effective use of, space, especially more wood-framed booths for projects.
- Examine ways to avoid sharing a related classroom as this creates a storage issue for materials and projects, which negatively impacts time on learning.
- Provide improved restroom access for females so they do not have to leave the shop and lose valuable time.

## Science

There are eleven licensed teachers in the Science Department, each with a dedicated classroom. Students must take and pass four lab science courses to meet graduation requirements. The science department presently offers:

- Biology (H, CP4)
- Biology, Part I and II (CP2)
- Anat & Phys (H, CP4,
- Chemistry (AP, Pre-AP, CP4,)
- Applied Chemistry (CP2)
- Physics (H, CP4)
- Physics and Technology (CP2)
- Applied Physics (CP2)
- Environmental Science (CP4, CP2)
- Earth Science (CP4)
- Introduction to Biotech & Media Prep (Dual Enrollment- High school credit as well as 8 college credits with successful completion)
- Zoology and Botany & Ornithology (CP4)

Courses are developed with a scope and sequence that meet the needs of each of three Academic Pathways offered to students at MRVTS (\*Pre-AP, AP-Advanced Placement Pathway, CP4-College Prep (4-year college pathway,) and CP2-(2-year college pathway.) Introduction to Biotechnology & Media Prep. is a dual enrollment course with Mount Wachusett Community College (MWCC) taught by a science teacher who is also an adjunct instructor at MWCC

The establishment of the Biotechnology & Media Prep. course was made possible by a generous grant that also allowed for the renovation of two science classrooms/labs. (Biotechnology and Biology)

There is no Advisory Committee; teachers work in teams to recommend updates to the program, create common formative assessments, final exams, rubrics and some common labs. The department also provides alternate assessments including student portfolio, oral presentation, independent projects, and research projects to meet individual student learning requirements. Data is analyzed from these assessments as well as other assessments (SAT, PSAT, MCAS, AP exams) to guide program modifications, and to develop strategies that will enhance student achievement. There is adequate common planning time set aside for this purpose.

There are monthly departmental meetings and an annual meeting of the science department staff and administration where programs are presented and reviewed.

The department is well equipped and supplied. Rooms are clean, organized and several display student work. The science department is able to order and use lab kits for most standard laboratory activities; this provides consistency, uniformity, easy transport, and easy storage. The chemical storage area is small but arranged well, and a new chemical safety officer will be appointed in the near future. Poor ventilation is an issue in the chemical storage area and in some classrooms and should be addressed in order to provide a safe healthy environment. Some rooms have not been updated for quite some time and a few have non-functioning fume hoods and non-working sinks.

The science department holds after-school hours to provide support and encouragement to students who

may be struggling and also to assist those who are engaged in higher level research projects and competitions.

Teachers communicate regularly via email, phone and written progress reports with parents, guardians, guidance and administration regarding student progress or issues.

This is the seventh consecutive year that students have participated in the *Student Spaceflight Experiments Program* a highly competitive program of the National Center for Earth and Space Science Education and the Arthur C. Clarke Institute for Space Education to encourage young scientists to design experiments to carry out in space (microgravity.) (*The projects are reviewed by science luminaries from University of Maryland, National Air and Space Museum Educational Initiatives Department, National institutes of Health, Northrup-Grumman, Johns Hopkins Univ. School of Med., Georgetown University and others.*) Just one example is the 2015 submission of: *Streptococcus mutans* Production of Lactic Acid in Microgravity. Science students submitted this project for launch aboard Mission 9 to the International Space Station. The project was one of 21 projects to launch out of 2499 submissions from 11,890 students. MRVTS Students travelled to the Smithsonian Air and Space Museum for the awards ceremony. Science students also maintain a Greenhouse and work with other trades in the school (Masonry, Info Tech., Business Tech, and Community Volunteers) to plant, grow, display and sell holiday and seasonal plants. They are also in the process of designing and constructing a Rain Garden with the help of other trades and community partners.

The science department recognizes the top male and female achievers during the annual Senior Awards Night. Students across all pathways are encouraged to participate in Robotics club, STEM club and other science competitions. The staff makes a concerted effort to open the vast world of science to students by relating classroom activities to real world career and professional opportunities.

Focused Field trips are a valuable addition to student experience and are generally supported by administration, but funding can be an issue. Staff members have been very successful in obtaining grants for the science department that have expanded course offerings and experiences for students.

**The Visiting Team commends Montachusett RVTS on the following:**

- The faculty is highly qualified and supportive of student learning
- The faculty works tirelessly to add course offerings (AP Chem., AP Enviro. Sci., Biotech.)
- The students are encouraged to participate and are supported in cooperative programs with other programs and research projects such as Student Spaceflight Experiment Program.

**The Visiting Team recommends the following:**

- Examine the need for better ventilation in the chemical storage closet to assure safety.
- Update safety equipment in some rooms
- Designate personnel to oversee chemical safety/air quality in labs
- Repair or replace non-functioning sinks and fume hoods in order to provide a safe and healthy educational environment
- Ensure that large class sizes do not interfere with maintaining safety in labs.

## **Social Studies**

The Social Studies department includes a liaison and four social studies instructors each with a student load over 150 students per cycle (over 300 students per year depending on courses taught). Students are scheduled for one 39-minute period per day. The academic cycle lasts five days. Montachusett Regional Vocational Technical School students take three and one-half years of History/Social Studies which are required for graduation. All Social Studies classrooms are wired for internet access and have SMART boards. Every Social Studies instructor has a school issued Chromebook while the department has access to the Media Center and the mobile computer lab. In Social Studies, students are exposed to a variety of learning resources such as multimedia presentations, videos, Google apps, handouts, maps, primary sources, graphic organizers etc. during their educational experience.

The Social Studies department meets formally and informally as a department. The department utilizes data analysis to improve course assessments and make instructional changes to lessons. The Social Studies department takes part in a yearly re-evaluation of curriculum based on the Massachusetts Curriculum Framework. The Social Studies department works on timelines and scope & sequence of all courses. Instructors create grading policies and performance assessments and are required to remain after school one day a week for extra help. The department works collaboratively on the creation of formative and summative assessments including midterm exams, performance assessments and final exams. The Social Studies curriculum is tied to the school's mission as Social Studies department encourages students to be productive and civic-minded young adults. As of the current school year (2015-2016), there are no state-required tests in Social Studies.

Class sizes are large in Social Studies reducing time on task and mastery of content in the 39-minute period. Paraprofessionals provide instructional support in CP2 classes for students. Student achievement in Social Studies is recognized at the Senior Awards Night.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The Social Studies department consistently adheres to curriculum frameworks and has adapted technology into daily student instruction.
- The Social Studies department adapts the curriculum to meet the needs of all learners, including using available technology resources to support multiple learning styles.
- The Social Studies department works together to develop and maintain shared curriculum resources and assessments.

### **The Visiting Team recommends the following:**

- Address increases in class size to promote increased mastery of the Social Studies curriculum.
- Adjust the length of student periods in Social Studies to allow additional time for students to achieve success in Social Studies course objectives.
- Create a recognition program to highlight student achievement in Social Studies.
- Provide more instructional support in CP2 courses.

## **Spanish**

The Spanish department at Montachusett Regional Vocational Technical School is comprised of two full-time instructors, both licensed by the Massachusetts Department of Elementary and Secondary Education. Four courses, Spanish I, Honors Spanish I, Spanish II, and Honors Spanish II are offered as electives to all students enrolled in grades 9 through 12. Beginning with the 2016/2017 school year, Montachusett will offer Spanish 3.

The program has employed the same two instructors for the past four years, creating continuity. Those instructors have worked together to update the curriculum and create curriculum maps for all levels of Spanish offered. The instructors emphasize culture in class by utilizing a variety of tools including textbooks, novels, film, and art projects. The classroom reflects the instructors' enthusiasm for relevant cultures, featuring maps, prints of artistic works, and a series of translated sayings.

### **The Visiting Team commends the Montachusett RVTS on the following:**

- The school updated Curriculum Guides for all Spanish courses.
- A course of studies which makes Spanish available to all enrolled students.
- The enthusiastic instructors who utilize different methods to teach Spanish language and culture.

### **The Visiting Team recommends the following:**

- Continue with efforts to limit class size in Spanish classrooms in order to improve personalized learning.

## Special Education

Montachusett Regional Vocational Technical School offers a carefully planned curriculum that is consistent with its mission and that reflects the needs of the students, the community and local business. They offer a true inclusion program in all of the content areas. Learning support areas as well as reading classes for students with disabilities are provided when determined to be necessary per a student's IEP. There are 206 students on an IEP, or 15% of the population. 67 are female and 139 are male. All students are on a diploma bound track; none of the Special Education Students are completing alternative assessments. The racial demographics breaks down as follows; African American 3; African American/Caucasian 7; Asian 1; Asian/Caucasian 1; Caucasian 192; Pacific Island 2. The four-year graduation rate of special needs students is 91% and the five-year rate is 97%.

Montachusett Regional Vocational Technical School has been in the process of turning the entire school over to an inclusion model. Instructional programming provided by the Special Education Department includes Learning Support curriculum, reading classes and social skills instruction for those students exhibiting need as determined by their IEP. Key features include:

**The Learning Support Curriculum:** Designed and created by school's Special Education team, focusing on study skills, executive functioning skills, and test taking strategies and techniques.

**Reading Courses:** Wilson Programming, this program is designed to help struggling readers to improve their phonemic awareness and decoding skills as well as their comprehension and inferential skills so that they may have an easier time accessing the curriculum material in their other core classes.

**Social Skills Curriculum:** Designed and created by the school psychologist and Speech and Language Pathologist. This program is designed to help students integrate into peer groups and advocate for their needs in a responsible and productive manner. This is essential for growth and preparedness for life after high school.

**Daily morning tutoring** is run by Special Education teachers and paraprofessionals and is available to all students during the school year from 7:10- 7:40am.

An educational team leader (ETL) was appointed to chair 504, IEP and transitional meetings. The ETL is also responsible for drafting all 504 plans and reviewing completed IEP's before they are sent home for parental approval. Numerous paraprofessionals and several Special Education Teachers have been added to Student Support Services to better serve their growing population. The Student Support Services currently consists of 6 full time teachers, 1 long-term substitute, 10 paraprofessionals, 1 full time school psychologist, a .3 position (2 days a week) additional school psychologist, 1 social worker, 1 ETL, 1 adjustment counselor and 1 speech and language pathologist.

The Special Education Department supports school-to-work and cooperative work experiences by working directly with students, general education staff and the coordinator of co-op education to promote and offer opportunities for all special needs students. All 688 Transition referrals for students needing school to work services are made through the IEP Team process during junior and senior year. Every special education student has a transition planning form completed within the IEP and cooperative education is considered.

The school strives to provide multiple opportunities for all students, including students receiving Special Education Services, to increase leadership skills, self-esteem, and career readiness. JROTC, Women in Technology, Skills USA, athletics and numerous other clubs enable students to interact with peers and faculty outside of the classroom all the while enhancing their academic, technical/vocational, and interpersonal skills.

Special Education meetings for students are held annually (Annual Report). All students actively participate in their Individualized Educational Plan Team meetings. These meetings are used to develop educational expectations and goals. Original Evaluation (OR) and Re-Evaluations (RE) are done every 3 years. Montachusett Regional Vocational Technical School has established student assessment measures that indicate performance levels and are used to drive instruction. Special Education Teachers and/or department give baseline assessments and are administered to determine student proficiency levels as well as deficiencies. Standardized assessments such as MCAS, Stanford 10 exam, and Achieve 3000 provide teachers with data necessary in lesson planning, differentiation, and setting goals. This data is closely analyzed and shared with all department members so that action plans can be designed.

**The Visiting Team commends the Montachusett RVTS on the following:**

- All students participate in standardized testing including MCAS, PARCC, AP, Accuplacer, SAT and PSAT's as well as vocational competencies and certifications.
- The instructors assist and support vocational and academic instructors when requested or time allows. There are paraprofessionals in many of the vocational programs to assist students with special needs
- The educational programs receive administrative support and funding, when available, for participation in professional development.
- The strong support by Administration for the inclusion program.

**The Visiting Team recommends the following:**

- Expand special education co-teaching to address the needs caused by an increase in class sizes.

## **Welding/Metal Fabrication**

The Welding/Metal Fabrication department at Montachusett RVTS is staffed by three full time instructors. The Program Advisory Committee meets twice a year and is made up of students, parents, employers and community members and plays a large role in the program's planning. The floor plan includes work areas broken up into three basic areas: metal fabrication, welding, and outside project work space. The program utilizes a hands-on project based curriculum. Students complete projects taken from the Massachusetts Vocational Technical Framework. It is evident that teachers and students take pride and tremendous care of their shop - it is very neat, clean and organized.

The Welding/Metal Fabrication department at Montachusett Regional Vocational Technical School enrollment is as follows: 15 seniors, 16 juniors, 16 sophomores and 17 freshmen. Out of the 64 students, 14 are female. Six seniors and one junior level student are participating in the co-op educational program. The instructors adhere to the school's philosophy and goals and align the curriculum with the Massachusetts Frameworks and are professional, enthusiastic, and highly motivated. The program has an apprenticeship agreement that provides qualified graduates with an opportunity for accelerated advancement through the Apprenticeship program for Sheet Metal Workers Local 17 & Local 63 Joint Apprenticeship & Training Committee.

Currently there are no licenses or certification necessary in the welding/metal fabrication trade, but all students have the opportunity to attempt the American Welding Society D1.1 Welding certification bend test and Structural Certification. Students are also required to pass the OSHA -10 General Industries certification online test. All students are encouraged to join Skills USA.

### **The Visiting Team commends the Montachusett RVTS on the following:**

- The school increased the number of welding instructors from two in the previous year to three
- The advisory board is highly motivated and engaged
- The program is involved in the community through production and community service
- Instructors hold multiple certifications in metal fabrication and welding

### **The Visiting Team recommends the following:**

- Maintain educational time (contact hours) on the production floor
- Continue professional development for instructors to stay abreast of current trends in the profession
- Increase storage space and create a related classroom area with computers for drawing software for plasma cutter and online OSHA testing
- Provide a safe storage area outside the shop for new and used gas bottles
- Provide bathrooms in the trade area for men and women



#### **4: EDUCATIONAL MEDIA SERVICES**

The Education Media Services at Montachusett Regional Vocational Technical School is a relatively new spacious facility designed with input by the current librarian. The result is a working space with an atmosphere both inviting and conducive to learning. The library is clean and well organized. During the day the area is flooded with an abundance of natural lighting further contributing to the comfortable environment. Both students and faculty are continuously using the Center during the day and after hours for community gatherings. The staffing is comprised of a certified library specialist and an additional assistant. Hours are from 7:30 a.m. to 4:00 p.m. Research projects in both academic and shop areas are supported by the librarian who helps students develop research techniques, providing more student scaffolding where needed. Financial support for the library is quite evident by the increased funding for the last 3 years.

The library served a total of 56,788 students during the 2014-2015 schoolyear. The Media Center has 6,676 print titles with 906 electronic book titles, many of which allow multiple students to access the electronic resource material at the same time. The Media Center has 30 Dell laptops in the adjoining classroom with an additional 36 Chrome Books in the main library. The library holds subscriptions to 30 databases, which the school purchases eight annually and The Massachusetts Library Board of Commissioners supplies the other 22.

#### **The Visiting Team commends Montachusett RVTS for the following:**

- The staff is integrally involved in the teaching and learning of the institution.
- The library schedule has been designed to meet the needs of the students and faculty.
- The facility and equipment are up-to-date, properly maintained.
- The popularity is such that many times the facility is at its capacity.

#### **The Visiting Team recommends:**

- Continue to ensure a sufficient and consistent financial support for collection development.
- Continue to support the Media Center in providing the excellent service the school is accustomed to.

## **5: STUDENT SERVICES**

Montachusett Regional Vocational Technical School has a comprehensive Student Services program. Student Support consists of a Director of Student Services and six guidance counselors, special education teachers, and specialists, three nurses, ten paraprofessionals and four administrative support staff. The guidance counselors are assigned by vocational area in grades 10, 11, and 12. There are two counselors at the 9th grade level that organize students alphabetically. One of the 9th grade counselors is a part-time position but carries almost the same load as the full time because of the yearly break out of students per alphabetical letter. The specialists consist of an Education Team Leader, one full-time and one part-time school psychologist, and one social worker, adjustment counselor, and speech-language pathologist.

The Student Support staff share a large, newly renovated space on the first floor of the building right near the entrance. The suite includes private offices for the Director, the guidance and specialists, administrative spaces, the co-op coordinator, and a conference room. The part-time school psychologist works out of the guidance conference room which presents difficulties in maintaining privacy and takes space from others who may need to have a larger meeting. The continuing education program also has an administrative space. Student Services partners with Fidelity to offer the SHINE program. The SHINE program promotes education about mental health issues particularly in the adolescent population.

The nurse's office is located across the hallway from the Student Support Suite. It is spacious and bright. Nurses work on a staggered schedule and there is coverage from 7:00am-3:00pm. There is nursing coverage for sports only starting at 3:00. Nurses use the X2 program for record keeping. They have the ability to add medical alerts to students' information in X2 for staff to access as needed.

### **The Visiting Team commends Montachusett RVTS for the following:**

- Student Services support a wide range of structured support for students.
- The different departments, guidance, SPED, and nurses, work well together to meet students' needs.
- The physical space of Support Services is warm and welcoming.
- Guidance and SPED offer extensive career planning services.
- The SHINE program which promotes education about mental health issues particularly in the adolescent population.

### **The Visiting Team recommends the following:**

- Dedicate a permanent and private office space for the part-time school psychologist
- Explore methods to ensure effective communications between the part-time guidance counselor, who is only available 60% of a student's week, and full-time staff who must support the student caseload when the part-time person is not available to ensure the personal health and safety of students.
- Ensure adequate supervision for students in the school building between the end of school and the first late bus.
- Streamline the distribution process of information by distributing reports electronically.

## **6: STUDENT RECORDS**

Montachusett Regional Vocational Technical School (MRVTS) keeps secure records in several locations. Within the Student Services suite there is storage for the IEP including 504 Plans, paper records, and current active student records. The cumulative records are stored in a safe dry closet located away from the Student Services suite. The health records are stored and maintained in the nurse's office. The vocational coordinator's office tracks alumni information and stores that in the front office.

MRVTS uses the X2 system to track attendance and grades. The system is used to take daily attendance and track dismissals and tardies. Teachers are able to see the attendance of their students in a timely manner. Term and mid-term grades are recorded by the teachers in X2. Students are given a paper copy of their grades to take home. The school sends out an all-call prior to the release of grades to remind parents about the distribution of report cards. Parents are able to access their student's grades in X2 through a parent portal. However, there is no requirement for instructors to post their grades in X2 for parents to view.

### **The Visiting Team commends Montachusett RVTS for the following:**

- The active student records are stored in an easily accessible space in the student services suite.

### **The Visiting Team recommends the following:**

- Disseminate alumni result data to all staff to assist with program and curriculum development.
- Ensure student records are secure after school hours while continuing education is using the student services suite.

## 7: SCHOOL STAFF

The School Staff at Montachusett Regional Vocational Technical School (MRVTS) features 10 administrators, 48 academic teachers, 59 vocational teachers, 6 inclusion teachers, 9 para professionals, 3 school nurses, and 13 guidance and support staff. In addition, the school and students are supported by custodial, café, and secretarial staff. There are also 5 district level administrators and their associated support staff. All faculty and staff meet state and local certification requirements. School staff members have the opportunity to impact decision-making by influencing curriculum design, vocational shop budget allocation, and academic department budgets. Additionally, teachers may voluntarily serve on a variety of committees, including Health & Wellness Committee, Evaluation Committee, and Technology Committee, to support the goals of the school. In 2013, the school adopted a new evaluation system for teachers and staff. To help support this system, a vice principal position was created in 2014.

MRVTS offers a variety of opportunities for professional development. Each year, the school offers one full professional day and up to three half professional days. Staff is able to choose between multiple offerings on those days. After-hours PD is not typically held on-site. Instead, the school pays for staff to attend courses off-site. Teachers with less than five years of employment are paid to attend three classes at the tuition rate of Fitchburg State College, although they may enroll at other schools. Teachers with more than five years of experience are paid to attend two classes at that same rate. Teachers are encouraged to enroll at courses offering college credit as non-credit courses are only accepted with certain conditions. Each year, the school sends teachers to professional conferences, assuming all costs. MRVTS enrolls new teachers in a two-year induction program rather than the one-year program mandated by Massachusetts Department of Elementary and Secondary Education. Among Massachusetts vocational schools, MRVTS spends the second most per pupil on professional development and eighth most among all Massachusetts school districts.

School staff supports the mission and goals of MRVTS in a variety of ways. While teachers are mandated to stay after school until 3:15 one day per week, all are available to stay more frequently. Furthermore, staff demonstrates their understanding of youth by advising clubs such as Media Club, Diversity Club, Drama Club, the Paw Print School Newsletter, Robotics, Friends of Rachel, Mixed Martial Arts Club, Anime Club, Student Council, National Honor Society, Fish and Game Club, Marksmanship Club, and STEM Club. To satisfy their mission that “every student will graduate from Montachusett Regional Vocational Technical School with the knowledge and abilities to be a productive and effective member of an ever changing society,” Monty Tech’s staff works together to coordinate a series of events such as Meet the Parents Night, Career Awareness Night, Tour Day, Open House, Parents’ Night, Co-Op, Skills USA, and the House Project.

### **The Visiting Team commends the Montachusett RVTS on the following:**

- The staff includes a variety of specialized personnel including adjustment counselor, social worker, school psychologists, and resource officer.
- The dedication of a highly qualified and hardworking staff.
- The staff committed beyond the hours of the school day.
- The implementation of two-year teacher induction program.
- The funding of off-site teacher professional development and willingness to support attendance at professional conferences.

**The Visiting Team recommends the following:**

- Address the absence of on-duty medical staff from 3:00PM until 6:00PM.
- Align on-site professional development with the professional needs of teachers

## **8: ADMINISTRATION**

The administrative team at Montachusett Regional Vocational Technical School is comprised of the principal, vice principal, director of vocational programs, director of student support services, and a director of academic programs. The principal, who is in his second year at Montachusett Regional Vocational Technical School, is the responsible head and professional leader of the school, and is responsive to the needs of his community and his staff. This is a new team of highly qualified school leaders who share the same student-centered vision for the school. The assistant principal position was created in 2014 to address the needs of the new evaluation system. In addition to the leadership team, Montachusett Vocational Technical High School is supported by many non-instructional professionals. Together, they adequately manage all aspects of the school. The clear delineation of duties outlined in the individual job descriptions creates autonomy and responsibility of individual leaders.

The administrative team is using the MA DESE Evaluation system to evaluate the performance of the administration and there is a system of adequate supports in place to mentor this newer administrative team. Along with meeting federal and state expectations, the leadership team sets goals based on the indicators in the written school improvement plan.

The leadership team presents a united and positive front for the school and they are well supported by staff members. Because the administrative team communicates effectively among themselves they are successful in balancing their own authority and autonomy and effectively exercise leadership, especially in management functions. However, at times, the larger purpose or direction of a particular initiative or program might not be immediately clear to staff

### **The Visiting Team commends the Montachusett RVTS on the following:**

- The current leadership team is fully staffed and highly competent in managing all aspects of the school.
- The entire administrative staff works efficiently together within the organizational structure to provide necessary leadership to the school.

### **The Visiting Team recommends the following:**

- Continue to ensure that the vision and direction of the school is apparent to the large number of faculty and staff who work at MRVTS.
- Examine how teacher input can be included in the development of new initiatives and in the school improvement plan.
- Develop a more effective and equitable distribution of administrative responsibilities associated with the teacher evaluation system.

## 9. FINANCE AND BUSINESS OPERATIONS

The Finance and Business operations department of Montachusett Regional Vocational Technical School District consists of six people including a Business Manager, an Accountant, a Payroll Benefits Assistant, an Accounts Payable Secretary, an Accounts Receivable Secretary, and a Business Office Secretary. The Business Manager has 16 years of experience at the school, including eight years as Business Manager and eight years as School Accountant. The current business manager is DESE certified and also holds an Academic Superintendent-Director licensure as well as being a Massachusetts Certified Public Purchasing Official (MCPPO).

A structured budget process is currently being utilized at the school which includes an annual review where all liaisons can submit prioritized budget requests. The budget requests are required by October 1 of the previous school year. The requests include equipment and materials at a cost of under and/or over \$5000. When equipment is over \$5000, instructors can plan for those larger expenses over a longer period of time than one school year. Once the budget for the school has been approved at the building level and then approved by 14 of 18 sending school districts, funds are made available to departments for needed items in the proper fiscal year. The computer program Infinite Visions is used by instructors to reconcile expenditures with approved funds. The designated instructor has some ability to make changes to expenses during the current fiscal year when needs arise. Through the work of the Business office and other school committees, a \$10.7 million “performance contracting” project was used to reduce energy consumption, stabilize energy costs, and fund other expenses such as much-needed capital improvements for Monty Tech.

There is a detailed process for requisitioning materials (SchoolDude) that allows all instructional staff to participate and be informed about the instructional budget that supports the various school educational programs. The accounts payable process and payroll are streamlined and transparent while containing checks to prevent improper expenditure of district/school funds. These checks include sign offs required by possibly four members of the school community to ensure proper use of funds. The Business office has clear procedures regarding daily cash receipts with daily deposits, verification of funds, and revenue reports. All transactions by the business office are recorded and an Audit Report prepared yearly for review by the end of the school year.

There are adequate funds for the Student Activity program. Students currently are required to pay \$100 for class dues over the four years. If a student cannot afford to pay, fundraising is made an option so all students regardless of economic status are included in student activities. The student activities that occur at Monty Tech are paid for from funds that are fundraised by each group each academic year with monies rolled over from year to year with the exception of a graduating class. The graduating class’ money is usually donated to another existing class or a gift purchased from the class with those funds. Monty Tech’s ability to transport students for school and student activities by using owned buses and staff greatly reduce costs for those clubs and activities.

**The Visiting Team commends Montachusett RVTS for the following:**

- The Business staff works well with school faculty to provide a complete educational experience for students utilizing the limited resources agreed to in the school budget.
- The staff has a computer program called “SchoolDude” which allows instructors to record issues with facilities, maintenance, get need supplies, or fix computer issues which are taken care of promptly providing a positive school climate where all stakeholders feel an important part of the school community.

**The Visiting Team recommends:**

- Ensure funding levels continue to be at an appropriate level to support the student body and Montachusett Regional Vocational Technical School’s educational programs.
- Provide more training in payroll and benefits for business office staff to increase control over financial operations.
- Streamline the process for the reimbursement of tuition for college courses or professional development activities completed by school faculty.



## 10. SCHOOL FACILITIES

The original structure at Montachusett Regional Vocational Technical School (MRVTS) was built in 1965. MRVTS is located at 1050 Westminster St. (Rt.2A) Fitchburg, Massachusetts in North Central Worcester County. The facility is approximately 289,628 square feet and sited on 103 acres. In addition to the main facility there are several buildings located on the grounds including the Field House, Main Warehouse, Greenhouse and Athletic Field Storage facility. The 1995 NEASC report noted a major construction and renovation of the facility was planned to address the needs of the current and future student body. The facilities staff is led by a director of facilities and supported by a plant supervisor, as well as custodial maintenance staff.

The construction and renovation project commenced in June of 1998 and was completed in November of 2000. The square footage of the main facility was increased to 280,628 square feet from 206,782 square feet for a net gain of 73,846 square feet. In 2005 in-house crews also renovated the following areas: Office Technology room, main conference room, lobby and reception area, JROTC room, Medical and Dental trade areas and the Mountain Room Restaurant. In 2013, the library renovation project was completed. This renovation project improved the space for students and faculty.

Improvements of the space include technology upgrades along with updates to the appearance, and new furniture in the library. More recently, in 2013, 45 existing rooftop HVAC units were replaced with VAV RTU's, a New Trane Building Automation System (BAS) was installed, and three new high efficiency condensing boiler plants were installed. Other updates at that time included efficient lighting retrofit and controls, the building envelope was improved, a new dust collection system was installed, a new domestic hot water heater was replaced, a new walk in cooler and freezer controls were added as well as a new condensing gas heater in the greenhouse, and a new roof installed on the school. All of these improvements resulted in a 35% annual savings of natural gas and electricity usage. Other projects included updates and renovations to the following areas: Health Occupations, Room 106, New Lockers in the Girls Locker Room, Engineering Shop, Science Lab, Library, Student Support Services and Information Technology, Nurses Station and Dean's' Office, Culinary Entrance and a Conference Room.

The interior of the facility is maintained in a clean and orderly fashion to foster a safe and clean environment for all persons using the facility. Day and evening custodial staff maintain the school facility, are responsible for rubbish and snow removal, cleaning the cafe, maintaining the restroom, emergency clean up, as well as routine maintenance. The school has a full-time resource officer, an extensive security camera system, and a student/staff identified badge program to minimize risk to students and staff members. Replacement of vocational area equipment is the responsibility of the individual vocational instructors, and the Vocational Director. Computer and network repairs are accomplished through the in-house help desk. The request for equipment is submitted on the 5-year capital equipment plan and sent through established administrative channels for approval and purchasing. When appropriate, the vocational programs make improvements and repairs. Major building system, such as fire sprinkler system, security, alarm security, and camera system are inspected annually. The City of Fitchburg is responsible for Fire, Health, and Building Inspection to help ensure the safety and security of MRVTS. The District facilities comply with all regulations and laws pertaining to the needs of the disabled.

The school facility supports and enhances all aspects of the educational program and is maintained to ensure a safe, sanitary, and attractive environment to support its many curricular and extracurricular activities. MRVTS is a community destination, regularly playing host to local events, and sufficient

care is given to the cleanliness and orderliness of the school building and grounds to engender staff, students and community pride in the school. To help maintain an attractive and safe campus, the facilities supervisors provide work orders to maintenance and custodial staff to address immediate daily needs and repairs. For larger and long term projects, there is a protocol between the superintendent, the business manager, and the facilities manager that allows funds to be appropriately allocated to areas of need. The facilities manager meets regularly with the superintendent and the principal to set goals and request financial resources as appropriate.

The annual budget and the annual school improvement plan are long range planning tools utilized to maintain and update the facility. Also a long-range maintenance plan has been developed to protect the financial investment of the site and buildings. The district budget includes \$250,000.00 annually for capital expenditures.

**The Visiting Team commends Montachusett RVTS for the following:**

- Maintaining clean, safe, attractive interior and exterior facilities.
- Continuing to use capital budget to improve, update and to create workspaces
- Implementing a preventive maintenance program for the facilities, equipment, lighting, and filters in the air handling units.
- Improving security lighting on school campus as well as inside the facilities

**The Visiting Team recommends the following:**

- Continue to upgrade and monitor electrical issues throughout the facility
- Evaluate ground security in regard to broken exterior fencing
- Create egress from Masonry shop to main building
- Ensure effectiveness and safety by keeping electrical panels clear of clutter (in all areas of building)
- Create opportunity for storage in all areas.
- Secure all access points to the childcare courtyard.
- Conduct a needs assessment in all programs of study to address immediate and long term facility needs.
- Find solution to monitor large shared air compressor currently located in automotive/auto body area.
- Evaluate and address air quality issues across facility.
- Evaluate and address air conditioning needs across the facility.

## **11: SCHOOL ATMOSPHERE**

Montachusett Regional Vocational Technical School has developed a District Improvement Plan created by administrators during the summer months and presented in an open meeting for faculty during August. The last District Improvement Plan was a three-year plan that covered the time period of 2012-2015.

The goals and expectations are published in the Faculty Handbook, the student handbook, and posted on the school's website @ [www.montytech.net](http://www.montytech.net).

The atmosphere and culture at Montachusett Regional Vocational Technical School is reinforced by a number of school events and programs. These include programs such as; the Bulldog Pride motivational incentive program which rewards students for good attendance, achievement, and/or conduct. Other programs include providing faculty with "Monty Tech" logo items at the first professional in service day, recognizing teachers for years of service, and introducing new teachers to the School Committee and the community at the first School Committee meeting of the school year.

At Montachusett Regional Vocational Technical School, holidays also provide opportunities to address common goals and values of students, faculty, staff and the community. For example, every year the National Honor Society sponsors a family in need. Vocational programs and staff donate food, and the vocational program donating the most items is treated to an ice cream social.

Each year, in December, all teachers are treated to a Holiday Breakfast and Lunch. Faculty is also invited to participate in a Secret Santa gift swap as well as an ornament swap in the days before Christmas. The Student Council sponsors an annual Spirit Week.

A Teacher Appreciation Breakfast is held each year in honor of Teacher Appreciation Week, where administrators cook breakfast for the teachers. Many students versus faculty athletic events are held each year, including a Faculty/Student Field Hockey Game as well as a newly created Dodge Ball Tournament for students with the winning student team facing off against a faculty team. Dances are held throughout the year with many faculty members volunteering as chaperones. A number of these dances have themes including Homecoming and The Prom. There is also a Ring Party held for students within the school day. These events involve faculty advisors working closely with students, supporting their ideas and efforts to create positive experiences. The Superintendent's Dinner is a major fundraising event held each spring. The cafeteria is transformed into a themed ballroom where a gourmet multicourse meal is served to over 300 guests. Students, faculty, and community volunteers all work together in order to make the event a success. A FUN Committee for staff has been established to organize hikes, trips and social events. The Cosmetology Shop sponsors a Homeless for Horizons fundraiser twice a year. A Student Assistance Fund is in place, funded by faculty and staff. This fund is used to buy anything from school supplies to groceries for school community students and families in need. Taken as a whole, these activities create a culture that fosters the unification of students, faculty, and staff.

The "mission statement" of the school is well posted throughout the school and reads as follows: "every student from Montachusett Regional Vocational Technical School will graduate with the skills, knowledge and abilities to be a productive and effective member of an ever-changing society."

Some concerns, however, should be noted as outlined in the results of the school survey given to faculty and conducted in the 2015-2016 academic year. Although the results are better than the survey conducted in 2005, some areas of concern remain especially when it comes to areas of consensus building before initiatives are implemented.

**The Visiting Team commends Montachusett RVTS for the following;**

- The various activities and traditions that keep students engaged in the school and the community at large.
- The students and staff feel safe.
- The variety of work done at the school by the various shops which reinforces pride in the school and its facilities and supports the school's positive reputation in the community..

**The Visiting Team recommends the following:**

- Utilize the results of the school survey to improve communication and build a more collaborative approach to decision-making

## SUMMARY

The Visiting Team to Montachusett Regional Vocational Technical School was composed of a representative group of vocational educators from Connecticut, Massachusetts, Maine, and Rhode Island each of whom brought a wealth of background and experience to the task of producing this report. Throughout the four-day visit, these members did their very best to evaluate Monty Tech based upon conclusions drawn from the staff's self-study material as well as observations, interviews, and classroom visitations at the school. In all cases, the team's report is intended to reflect the degree to which Montachusett RVTS is meeting the educational needs of the community and its students.

The Visiting Team has identified those programs and aspects of the school which merit commendation as well as areas in which changes might be made to effect program and institutional improvement.

**Visiting Team members gained certain general impressions as they completed their assigned tasks. They were especially complimentary for the following observations:**

- Montachusett RVTS has an excellent relationship with the local communities it serves. This is due to effective practices – outstanding in both quantity and quality - such as community service opportunities for students and faculty, extra and co-curricular activities that bring students, staff, and community members together, a well-kept facility available for community use, and frequent communication between the school and community members.
- The use of students' trade skills to support school projects like the masonry addition, the renovation of existing spaces, and the upcoming Veterinary Tech addition help add to a clear sense of student pride.
- The school offers a well-designed Course of Studies that offers opportunities for all students. There is a wide range of supports in academic classes that increases the likelihood of student achievement.
- The outstanding commitment to support faculty professional development, especially financially.
- The generous levels of financial support for instructional programs and student activities.
- The school has a wide range of support staff to support student needs of all types.
- The well-maintained and clean school building helps support a positive school atmosphere.

**Visiting Team identified a number of suggestions for improvement in the school's programs and operations, the most significant of which were:**

- Address the wide-spread shortage of storage space that impact a number of school programs.
- Continue to add opportunities for faculty input and involvement in school planning and decision-making functions where appropriate.

A more detailed listing of commendations and recommendations for each program and certain areas of the school's operations is contained in the body of this report. By reviewing these observations, the administration and faculty at the school should be able to develop specific plan of action which will enable them to continue those practices that are clearly meeting expectations and to modify or change those that are not.

The Committee on Technical and Career Institutions of the New England Association of Schools and Colleges will expect Montachusett Regional Vocational Technical School to submit a two-year

progress report and, subsequently, a five-year progress report. Following submission of the five-year progress report the school will prepare to host a Five-Year Focus Visit. It is suggested that when examining the Decennial Report, school personnel should consider classifying all recommendations into one of the four following categories:

- Those that can be carried out at once.
- Those which can be carried out in the future.
- Those which may require long range planning to implement.
- Those which are considered to be invalid at this time.

The Visiting Team understands that it is possible that it may have offered some recommendations based upon insufficient background information or oversight. However, thoughtful consideration should be given to items before placing them in an invalid category.

The Visiting Team hopes that a positive response to this Decennial Report and its many recommendations will result in substantial progress in meeting the school's goals and objectives within the next few years.

Finally, the Visiting Team deeply appreciates the hospitality and the cooperation afforded them during their stay and wishes Monty Tech great success on continual improvement.