*Massachusetts Department of Elementary & Secondary Education*

Office for College, Career and Technical Education



*Vocational Technical Education Framework*

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***Strand 5***

***Management and Entrepreneurship Knowledge and Skills***

**August 2022**

**Massachusetts Department of Elementary and Secondary Education**

**Office for College, Career, and Technical Education**

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Table of Contents

Acknowledgements Overview 4

Commissioner’s Letter 5

Overview & Organization of Strands……………………………………………………………………………………………..6

Skill Standard Levels 7

Organization of the Frameworks – Strand 5

Strand 5 Framework

Appendices

Appendix A: Selected Websites

# Acknowledgements

The Massachusetts Department of Elementary and Secondary Education awarded a multi-year contract to the Massachusetts Association of Vocational Administrators (MAVA) to launch the Statewide Vocational Technical Education Framework Revision Project, in consultation with the Office for College, Career and Technical Education. Through the collaborative efforts of many, vocational frameworks were revised to ensure curriculum alignment to current business and industry standards.

The Department of Elementary and Secondary Education wishes to thank all the groups that contributed to the development of these standards and all the teachers, administrators, and private sector advisory committee members who provided valuable employer validation of standards.

This updated Framework reflects current business and industry standards and includes the addition of the *Hours of Instruction*, *updates to Industry Recognized Credentials,* *Equipment,* and the *addition of Embedded Academic Performance Examples.*

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Dear Colleagues,

I am pleased to present to you the *Massachusetts Vocational Technical Education Framework,* adopted by the Department of Elementary and Secondary Education in August 2022.

This Framework includes standards that are representative of all aspects of the industries that students enrolled in Chapter 74 state-approved Vocational Technical Education Programs are preparing to enter. This vocational technical framework reflects the size, scope, and quality of Chapter 74 state-approved Vocational Technical Education Programs in Massachusetts.

As with all Massachusetts Vocational Technical Education Frameworks, a crosswalk between the vocational technical standards and relevant academic standards from the Massachusetts Curriculum Frameworks are identified, which directly support effective integration of academic and technical content. Academic Performance Examples are included in Strand 3 of this revised framework to provide examples of how academic core content is an integral component of the Vocational Technical Education classroom/laboratory.

The comments and suggestions received during the revision of Strand 2 of this Frameworkhave strengthened this document. We will continue to work with schools and districts to implement this updated Vocational Technical Education Framework over the next several years, and we encourage your comments.

I want to thank everyone who worked with us to create challenging, competency-based vocational technical learning standards for Massachusetts students enrolled in this Chapter 74 state-approved vocational technical program. I am proud of the work that has been accomplished.

Jeffrey C. Riley,

Commissioner of Elementary and Secondary Education

# Introduction

**Overview & Organization of Strands**

The Massachusetts Department of Elementary and Secondary Education understands the necessity of maintaining current Vocational Technical Education Frameworks which ensure that vocational technical students across the Commonwealth are taught the most rigorous and relevant standards aligned to the needs of business and industry.

This Revised Framework models the same format of all Massachusetts’ Vocational Technical Education Frameworks and is organized into six strands. Standardized VTE Frameworks Strands 1, 4, 5, and 6 have been revised to ensure currency with industry standards.

Strand One contains the Management and Entrepreneurship standards that are common to all programs. The Strand Five Team worked collaboratively with staff from the Department of Elementary and Secondary Education and the Advisors of the Career and Technical Student Organizations (CTSO) to crosswalk standards to national CTSO Curricula, as applicable.

* No objectives were deleted, only modified, or relocated.
* Language and wording have been clarified.
* Additions include a focus on maintaining a safe school and workplace in terms of creating a positive climate/environment.
* Student safety credential program has been revised.
* **Strand 5.C.02 Managing Employment** was added.
* Performance Examples updated.

Strand Two has been revised to include technical standards aligned to current business and industry standards, including new processes utilizing state-of-the-art equipment. The equipment necessary to deliver standards is also identified in this framework. To meet Chapter 74 vocational technical education standards, the equipment must meet industry standards.

Strand Three, Embedded Academic Knowledge and Skills, has been revised to clarify the direct connection of Core Academic Frameworks as they apply to Vocational Technical Education Frameworks.

Framework revision teams created Embedded Academic Performance Examples to provide specific learning scenarios which are typically utilized in VTE classrooms and labs to create real life learning experiences which provide students with knowledge attainment in Vocational Technical Education Frameworks and Academic Learning Standards. It is understood that most VTE learning experiences include Academic Knowledge attainment. The Performance Examples provided in this Framework are intended to provide awareness of these learning experience.

During Phase 3 of the 2021 Framework Revision Process, Strands One, Four, Five, and Six teams completed the revision of these strands. All Strand One, Four, Five and Six teams worked collaboratively with staff from the Department of Elementary and Secondary Education and the Advisors of the Massachusetts Career and Technical Student Organizations to crosswalk standards to national Career & Technical Student Organizations Curricula, as applicable. The Office for College, Career, and Technical Education contracted the MAVA Consultant Team to work closely with the office to complete all the work accomplished during the 2021 Framework Revision Project. A remarkable amount of work was accomplished through the efforts of numerous professionals who collaborated and diligently supported this work. The Office for College, Career, and Technical Education is grateful for all the support received from the field, particularly all the teachers (technical and academic), administrators, advisory committee members, business and industry representatives, the Division of Professional Licensure boards, the Massachusetts Association of Vocational Administrators, the MAVA Consultants, and the Massachusetts Vocational Association, whose contributions were tremendous.

The ***Strand Two Team*** maintained the structure the 2013 Framework that includes topic headings, standards and objectives, and performance examples. The Strand Two Framework now includes Hours of Instruction, as well as identifying Basic, Essential, Advanced and Advanced (A+) Skill Standards that are coded B, E, A and A+.

The ***Strand Three Team*** provided embedded academics performance examples that were developed to reflect the Standards for Literacy in Content Areas, the Standards for Mathematical Practice, the High School Science & Engineering Practices, and the Digital Literacy & Computer Science Practices.

**Skill Standard Levels**

The 2021 Framework identifies vocational competencies in three skill levels; basic, essential and advanced. **See below for more information.**

**B = Basic Standards:** Fundamental Skills all Chapter 74 state-approved vocational programs are required to deliver basic standards.

**E = Essential Standards:** Knowledge and Skills required for industry licensure and credentials. All Chapter 74 state-approved vocational programs are required to deliver essential standards.

**A = Advanced Standards:** Higher-level knowledge and skills beyond essential entry level employment standards. All Chapter 74 state-approved vocational programs are required to deliver advanced standards.

**A+ = Advanced Plus (A+)**: Denotes Advanced Standards - highest level of supplemental training

* **Advanced (A+) Skills Standards** are identified in Strand Two by a plus sign (A+). Although these standards are not required, they are provided as suggestions that districts may choose to use to increase the depth of a particular topic, or add additional topics, particularly for advanced students or for those seniors who do not participate in cooperative education. Advanced (A+) standards are identified with the use of a plus sign (A+).

It is not required that all students achieve “advanced (A+) level standards”, however, all Chapter 74 state-approved programs must have the capacity to deliver all three skill levels; Basic, Essential, and Advanced.

**Organization of Framework – Strand 5**

The Vocational Technical Education Frameworks contain knowledge and skills covering all aspects of industry, reflected in six strands: Safety and Health, Technical, Embedded Academics, Employability, Management and Entrepreneurship, and Technological Knowledge and Skills.

Standards and objectives are grouped under topic headings, which are displayed in bold. Each standard is followed by a performance example.

In the excerpt below, 5.A is the topic; 5.A.01 is the first standard and 5.A.01.01 through 5.A.01.06 are the objectives under that standard.

**Strand 5 identifies all objectives as Essential Skill Levels (E).**

|  |  |  |
| --- | --- | --- |
| **5.A** | **Basics of Small Business Management and Entrepreneurship**  |  |
| **5.A.01**  | **Examine key considerations of small business management and entrepreneurship.** | **SKILL LEVEL** |
| 5.A.01.01 | Assess the traits of successful entrepreneurs.  | E |
| 5.A.01.02 | Summarize fundamental economic concepts (influences, supply/demand, opportunity costs, industry analysis, etc.). | E |
| 5.A.01.03 | Explain the role and importance of small business in the economy.  | E |
| 5.A.01.04 | Compare the types of businesses (i.e., service, wholesale, retail, manufacturing). | E |
| 5.A.01.05 | Classify the relationship among small businesses and their stakeholders (i.e., community, customers, vendors, suppliers, etc.).  | E |
| 5.A.01.06 | Recognize trends and emerging industries (i.e., technology, clean energy, sustainability, etc.). | E |
|  | **Performance Examples** |  |
|  | You are a recent graduate from high school and have been recruited by a business owner in your industry to partner in a new business venture, serving a diverse and inclusive client base, utilizing your vocational skills and experience. At this point, you must learn the personal and financial risks of becoming an entrepreneur and assess, using Service Corps of Retired Executives (SCORE) whether this is something you would be comfortable taking on. You also need to use critical thinking skills to evaluate whether this business idea is something you find worthwhile to pursue. Considerations for this decision could include but are not limited to: * the impact this company would have on the community
* the demand for this product and/or service
* ethical considerations,
* commitments to diversity,
* equity and inclusion,
* emerging trends within the industry
* all work and decision making associated with starting a business.

 Respond to your potential business partner with a letter summarizing your decision and your reasoning.  |  |

**Strand 5 – Management and Entrepreneurship Knowledge and Skills**

|  |  |  |
| --- | --- | --- |
| **5.A** | **Basics of Small Business Management and Entrepreneurship**  |  |
| **5.A.01**  | **Examine key considerations of small business management and entrepreneurship.** | **SKILL LEVEL** |
| 5.A.01.01 | Assess the traits of successful entrepreneurs.  | E |
| 5.A.01.02 | Summarize fundamental economic concepts (influences, supply/demand, opportunity costs, industry analysis, etc.). | E |
| 5.A.01.03 | Explain the role and importance of small business in the economy.  | E |
| 5.A.01.04 | Compare the types of businesses (i.e., service, wholesale, retail, manufacturing). | E |
| 5.A.01.05 | Classify the relationship among small businesses and their stakeholders (i.e., community, customers, vendors, suppliers, etc.).  | E |
| 5.A.01.06 | Recognize trends and emerging industries (i.e., technology, clean energy, sustainability, etc.). | E |
| 5.A.01.07 | Locate professional organizations, trade associations, and government agencies to explore their benefits (i.e., Service Corps of Retired Executives (SCORE), Small Business Administration (SBA), etc.) | E |
| 5.A.01.08 | Identify the six steps in the problem-solving model and recognize its importance to running a small business.  | E |
| 5.A.01.09 | Describe and identify ethical business practices. | E |
|  | **Performance Examples** |  |
|  | You are a recent graduate from high school and have been recruited by a business owner in your industry to partner in a new business venture, serving a diverse and inclusive client base, utilizing your vocational skills and experience. At this point, you must learn the personal and financial risks of becoming an entrepreneur and assess, using SCORE, whether this is something you would be comfortable taking on. You also need to use critical thinking skills to evaluate whether this business idea is something you find worthwhile to pursue. Considerations for this decision could include but are not limited to: * the impact this company would have on the community
* the demand for this product and/or service
* ethical considerations,
* commitments to diversity,
* equity and inclusion,
* emerging trends within the industry
* all work and decision making associated with starting a business.

 Respond to your potential business partner with a letter summarizing your decision and your reasoning.  |  |
| **5.B** | **Starting a Business** |  |
| **5.B.01**  | **Research and locate the criteria required to start a business.** | **SKILL LEVEL** |
| 5.B.01.01  | Compare and contrast business structures (i.e., Limited Liability Company (LLC), sole proprietorships, franchises, partnerships, corporations). | E |
| 5.B.01.02  | Explain the purpose of a business plan. | E |
| 5.B.01.03  | Differentiate the sections of a business plan. | E |
| 5.B.01.04 | Research alternatives to traditional business plans (i.e., Business Model Canvas).  | E |
| 5.B.01.05 | Identify the options for funding a business. | E |
| 5.B.01.06 | Locate and research how to comply with local, state, and federal laws that impact starting a business (i.e., zoning ordinances, etc.).  | E |
|  | **Performance Examples:** |  |
|  | Your team has been hired by an entrepreneur in your industry who is looking for you to evaluate the effectiveness of a business plan. In evaluating the business plan, you notice that the plan has many missing components, and the entrepreneur has many corrections to make. Compare the business plan to the elements of successful business plans as described by SCORE or Small Business Administration (SBA.gov) to determine what is missing and present the results of your findings (Turn and Talk, Think-Pair-Share, Slide presentation, etc.).    |  |
| **5.C** | **Managing a Business** |  |
| **5.C.01**  | **Examine day-to-day business operations and procedures.** | **SKILL LEVEL** |
| 5.C.01.01 | Formulate SMART goals (Specific, Measurable, Achievable, Realistic, and Timely) as they relate to a business setting. | E |
| 5.C.01.02 | Demonstrate effective communication skills in a business setting. | E |
| 5.C.01.03  | Practice decision-making skills to make effective business decisions. | E |
| 5.C.01.04 | Identify a business’s chain of command and define its organizational structure, including individual roles and responsibilities.  | E |
| 5.C.01.05 | Recognize and apply effective customer service skills and practices. | E |
| 5.C.01.06 | Acknowledge and describe written operating procedures and policies. | E |
| 5.C.01.07 | Measure inventory, productivity, and labor cost. | E |
| 5.C.01.08 | Adapt business and workforce to market changes. | E |
| 5.C.01.09 | Compare industries and how labor organizations play a role in business.  | E |
| 5.C.01.10 | Identify state and federal laws and regulations related to managing a business.  | E |
| **5.C.02**  | **Managing Employment** | **SKILL LEVEL** |
| 5.C.02.01 | Select criteria for recruiting, hiring, and onboarding of employees. | E |
| 5.C.02.02 | Describe common practices for employee retention and benefits (i.e., vacation time, uniforms, childcare, professional development, flextime, etc.). | E |
| 5.C.02.06 | Investigate the benefits of diversity and inclusion to a business environment, including but not limited to: race, national origin, religion, age, sex, gender identity, sexual orientation, and disability. | E |
| 5.C.02.03 | Evaluate discipline practices for employees. | E |
| 5.C.02.04 | Differentiate between management and leadership.  | E |
| 5.C.02.05 | Locate and research how to comply with local, state, and federal employment law (i.e., American Disabilities Act (ADA), National Labor Relations Act (NLRA), Fair Labor Standards Act (FLSA), Occupational Safety and Health Act (OSHA), Family and Medical Leave Act (FMLA), etc.). | E |
|  | **Performance Example:** |  |
|  | In the role of a business owner in your industry, post a job listing. Be sure to include:  * the specific qualifications required for an employee in your field
* the responsibilities of the employee
* common employee benefits

Be sure to indicate you are an equal opportunity employer.   |  |
| **5.D** | **Marketing a Business** |  |
| **5.D.01**  | **Market and promote a business.** | **SKILL LEVEL** |
| 5.D.01.01  | Describe methods of market research and identifying target markets. | E |
| 5.D.01.02 | Identify direct and indirect competitors. | E |
| 5.D.01.03  | Analyze the concepts of a marketing mix (the 4Ps of marketing: product, price, place and promotion). | E |
| 5.D.01.04 | Compare and contrast relevant marketing tools used to sell products and services. | E |
| 5.D.01.05 | Research strategies to retain a customer base. | E |
| 5.D.01.07 |  Locate and research how to comply with state and federal laws as they relate to marketing (i.e., Federal Trade Commission (FTC), copyright, trademark, intellectual property, consumer protection laws). | E |
|  | **Performance Examples:** |  |
|  | Taking the role of small business owner in your industry, create a promotional tool to market your business. Students should incorporate the 4Ps of marketing and discuss what kind of tool would be most effective. Students should create their promotional tool so that it appeals to their target market.  |  |
| **5.E** | **Managing Financial Practices**  |  |
| **5.E.01**  | **Identify essential record-keeping and financial reporting practices.** | **SKILL LEVEL** |
| 5.E.01.01  | Discuss the importance of maintaining accurate records. | E |
| 5.E.01.02 | Review essential financial reports and describe their purpose (i.e., budget, balance sheet, and income statement). | E |
| 5.E.01.03 | Recognize the impact of payroll practices (i.e., deductions – federal, Federal Insurance Commission Act (FICA) and state taxes and insurances, Federal Unemployment Tax Act (FUTA), State Unemployment Tax Act (SUTA)). | E |
| 5.E.01.04 | Define the purpose of tax forms used in small business (i.e., W2, W3, W4, 941, 1099).  | E |
| 5.E.01.05  | Describe practices related to inventory control, purchasing and billing. | E |
| 5.E.01.06 | Explain the importance of maintaining and reconciling a small business checking account. | E |
| 5.E.01.07 | Demonstrate an understanding of business contracts in your industry. | E |
| 5.E.01.08 | Research companies used to outsource financial practices (i.e., accountants, bookkeeping services, payroll services).  | E |
|  | **Performance Example:**  |  |
|  | In the role of a small business employee in your industry, students will research automated accounting tools, choose the best one for their business, and create a presentation to convince their employer that their choice would be the most effective.  The presentation should include:  * payroll
* inventory control
* purchasing/billing
* sales
* financial reporting
 |  |

**Appendices**

***Disclaimer: Reference in the Appendices Section to any specific commercial products, processes, or services, or the use of any trade, firm or corporation name is for the information and convenience of the public and does not constitute endorsement or recommendation by the Massachusetts Department of Elementary and Secondary Education or the Massachusetts Association of Vocational Administrators.***

**Appendix A**

Selected Websites

* Entrepreneur - <http://www.entrepreneur.com>
* Inc. Magazine - <http://www.inc.com/>
* Junior Achievement USA - <https://jausa.ja.org/programs/index?gradeLevel=high&pillar=entrepreneurship>
* Khan Academy –

<https://www.khanacademy.org/college-careers-more/entrepreneurship2/interviews-entrepreneurs>

* Kauffman/Entrepreneurs –

<https://www.entrepreneurship.org/learning-paths/entrepreneurial-marketing/content-and-objectives>

* National Federation of Independent Business - [Small Business Association | NFIB](https://www.nfib.com/)
* National Foundation for Teaching Entrepreneurship (NFTE) - [www.nfte.com](http://www.nfte.com)
* US Small Business Administration - [Small Business Administration (sba.gov)](https://www.sba.gov/)