

Chapter 74 Programming Submission

Educational Vision for Chapter 74 Programming

Provide a description of the District's vision for its education delivery methodology for Chapter 74 Programming.

Programs to be Included in the Proposed Project

Chapter 74 Program Offerings	Current Enrollment	Proposed Capacity	Comment
Engineering & Technology	380	400	Existing Program, space to be expanded
Programming & Web Development	0	200	New Program
Marketing Management & Finance	0	200	New Program
Construction Craft Laborer	0	150	New Program
Total	380	950	

Programs to be Expanded or Contracted

Program	Current Enrollment	Approved Capacity	Proposed Capacity
Engineering & Technology	380	400	400
Total	380	400	400

Instructions – Using Narratives and/or tables provide the following by program for all programs that are to be added, expanded, or contracted. Supplement the information with attachments as appropriate

CVTE Engineering & Technology

- Description of deficiencies in the existing program (if applicable);
- Description of how deficiencies will be addressed (if applicable);
- Rationale for adding, expanding, contracting or discontinuing;

- Evidence that a Program Advisory Committee is in place for new or modified programs;
- Documentation that the proposed program adjustments and additions were planned in consultation with its advisory committee based on adequate and timely information regarding student, workforce, and job development demands or job market trends; and
- Planned budget for updated program offering;

Engineering and Technology Academy (ETA)

Doherty Memorial High School is a comprehensive high school which currently houses one CVTE program – Engineering. The Engineering and Technology Academy (ETA) vocational program serves students from across the district, and each year has more students applying than the current space can accommodate.

The ETA program serves approximately 100 students in each grade – up to 400 total. This accounts for approximately 25% of the current school population. Students completing all CVTE requirements receive a technical certificate, in addition to their diploma. Given the complex content knowledge required for work in the career, our primary goal is to provide students with a strong foundation in content knowledge along with skills so that, as students enter college, they are well prepared to continue their engineering/technology education. From a review of local (Massachusetts) and national labor market projections, there is a clear demonstrable need to students to enter this profession, albeit by first earning some level of post-secondary education.

CVTE Engineering Program – Occupational Projections

Massachusetts Employment Projections – Engineering and Related Occupations Executive Office of Labor and Workforce Development					
Occupation	Employment 2016	Employment 2026	Percent Change	Typical Education needed for Entry	2018 Mean Annual Wage
Civil Engineers	7,733	8,494	+9.8%	Bachelor's degree	\$94,210
Electrical Engineers	8,317	9,068	+9.0%	Bachelor's degree	\$113,920
Mechanical Engineers	9,349	10,029	+7.3%	Bachelor's degree	\$98,190
Engineering Teacher,	1,843	2,184	+18.5%	Doctoral or Professional	\$135,140

Postsecondary				degree	
Civil Engineering Technician	667	727	+9.0%	Associate's degree	\$55,420
Electrical and Electronics Engineering Technician	4,023	4,051	+0.7%	Associate's degree	\$66,350
Mechanical Engineering Technician	1,038	1,082	+4.24%	Associate's degree	\$60,100

United States Employment Projections – Engineering and Related Occupations U.S. Department of Labor, Bureau of Labor Statistics					
Occupation	Employment 2016 (in thousands)	Employment 2026 (in thousands)	Percent Change	Typical Education needed for Entry	2018 Median Annual Wage
Civil Engineers	303.5	335.7	+10.6%	Bachelor's degree	\$86,640
Electrical Engineers	188.3	204.5	+8.6%	Bachelor's degree	\$96,640
Mechanical Engineers	288.8	314.1	+8.8%	Bachelor's degree	\$87,370
Engineering Teacher, Postsecondary	47.6	54.6	+14.6%	Doctoral or Professional degree	\$101,720
Civil Engineering Technician	74.5	81.1	+8.8%	Associate's degree	\$52,580
Electrical and	137.0	139.8	+2.0%	Associate's degree	\$64,330

Electronics Engineering Technician					
Mechanical Engineering Technician	46.1	48.4	+5.0%	Associate's degree	\$56,250
Career/Technical Education teachers, secondary school	7.7	83.7	+6.4%	Bachelor's degree	\$60,250

The number of available classrooms and laboratory spaces, combined with their physical layout and available equipment, create deficiencies that challenge the department's attempted delivery of a 21st century engineering education:

- The ETA serves approximately 100 students per grade. This corresponds to a 20:1 student to teacher ratio. In the Worcester schools, teachers are assigned 5 classes each year, and the ETA currently has 4 CVTE Engineering teachers. There is no planned change to this enrollment pattern for the new school.
- The minimum required laboratory space for a class of 20 students is 2200 square feet. There are 2 laboratory spaces serving the students in the ETA: one space is approximately 645 square feet, and the other is approximately 1200 square feet. Even combined, there is not enough laboratory space allotted to meet the requirements. In this current space, teachers work together to ensure students are working safely: for example, a teacher on his/her prep period will come to the engineering classroom and supervise a portion of the students working in the classroom space while the CVTE teacher supervises a group of students into the laboratory space. The entire class cannot fit into either of the laboratory spaces at the same time. In the current space, there is no means to increase the square footage of the laboratory space.
- The classroom and laboratory spaces are accessible through standard sized exterior and interior doorways. There is no loading bay oversized door, for example. Thus, all equipment and machinery is limited in dimensions and size by the width and height of these doorways. In the current space, there is no means to change the dimensions of the entry doorways.
- Each engineering classroom doubles as a computer lab, as each course curriculum relies in part on the utilization of software/hardware. Given the relatively small classroom sizes (ranging from approximately 835 to 1100 square feet) paired with the fixed locations of the computers, there are challenges to having students work collaboratively in groups or with space

available for them to use non-computer based instructional materials. Invariably, student groups can be observed working in the hallways, under the supervision of other staff, or in spaces without a lot of room. In the current space, there is no means to change the dimensions of the classrooms.

There are no plans to expand, contract, or discontinue the Engineering program at Doherty Memorial High School. Rather, the goal is to create a space that enables students to work safely, with up-to-date technology, and in a space that enables students to work collaboratively in a range of learning activities. The goal is also to provide space so that the class does not have to be broken into groups, each under additional supervision, or to have to identify work-around solutions to the current set of deficiencies.

The ETA, as one educational program within the larger comprehensive high school, is provided funding through the school based budgeting process. Doherty is allocated additional per pupil (CVTE students only) funding within the Instructional Materials account provided to each school during district budgeting sessions. ETA staff members, based on curriculum needs, suggestions from industry and post-secondary representatives regarding software and technology, as well as current industry trends, provide a list of requested materials and equipment to school personnel for procurement.

Refer to the following attachment for supplemental information:

- A. Engineering & Technology Program Advisory Committee Form

New Programs to be Added

Attach the following for each proposed new program from DESE's Application Package for Vocational Technical Education New Program Approval M.G.L.c.74:

- Completed School District and Program Information Page,
- Completed Statement of Assurances and Signature Block,
- District's responses to criteria 1, 2, and 3 on the Chapter 74 Vocational Technical Education Proposed Program Application Checklist.

See the following attachments for supplemental information:

- B. Labor Market and Student Demand Narrative
- C. Programming & Web Development
 - 1. DESE Part A Application
 - 2. Programming & Web Development Initial Program Advisory Committee Form
 - 3. Programming & Web Development Total Hours of Instruction Worksheet
- D. Marketing & Finance
 - 1. DESE Part A Application
 - 2. Marketing & Finance Initial Program Advisory Committee Form

3. Marketing & Finance Total Hours of Instruction Worksheet
- E. Construction Craft Laborer
 1. DESE Part A Application
 2. Construction Craft Laborer Initial Program Advisory Committee Form
 3. Construction Craft Laborer Total Hours of Instruction Worksheet
- F. Statement of Assurances and Superintendent Signature

Confirm that the District understands that this submittal documents the District's desire to investigate potential changes to existing Chapter 74 programming as part of its Feasibility Study only, does not commit the District or the MSBA to any particular Chapter 74 Program offerings at the Doherty Memorial High School project, all local decisions and approvals regarding Chapter 74 programming offerings are to be finalized prior to the District submitting its Preferred Schematic Report to the MSBA, and that DESE review and acknowledgement of the District's proposed additions, expansions, contractions, and/or discontinuations to its current Chapter 74 program offerings must be provided with the District Preferred Schematic Report.

Confirm that the District further understands that, among other things, program area associated with Chapter 74 programming and total square footage of the Doherty Memorial High school project shall be subject to the approval of the MSBA's Board and that the final approval of a Proposed Project at the [insert school/project name] school project shall be within the sole discretion of the MSBA's Board.

A. ENGINEERING & TECHNOLOGY

1. Program Advisory Committee

A school district official must complete this form and submit it with the Application for Vocational Technical Education New Program Approval M.G.L.c.74, Massachusetts Department of Elementary and Secondary Education staff will then review for compliance with the Vocational Technical Education Regulations.

[illegible]

B. LABOR MARKET & STUDENT DEMAND

1. Labor Market & Student Demand Narrative

Worcester Public Schools has recognized the success of Career Vocational Technical Education in providing students opportunities to be both College and Career Ready. This success is well documented in the success of students enrolled in Worcester Technical High School as well as the other Career Technical Programs in the district. As such WPS has worked diligently in providing the resources to ensure that these programs are at capacity and continue to operate with the latest materials and equipment. However, even with these efforts, WPS is still falling short of providing access to CTE/CVTE programming for all students. Data indicates that over 400 students annually are waitlisted for CTE/CVTE programming within the District. Thus WPS Central Administration convened a panel to expand access to these much needed and successful programs. Recent efforts of this panel have included the addition of CTE/CVTE programs at the new South Community High School facility (the expansion of a current Chapter 74 approved Diesel Technology program, Culinary Arts Program and Early Childhood Education Program); as well as the approval of an Innovation Pathways Program providing technical skills training in four areas (IT, Health, Civil Engineering, and Advanced Manufacturing) for students from all District conventional high schools (North, South, Doherty, Burncoat, UPCS, Claremont). The IPP program training takes advantage of the capital investment at WTHS. When Doherty Memorial High School was selected for a new building, the panel convened to assess the opportunity to again expand CTE/CVTE programming to meet the needs of both the labor market and student demand.

The panel selected programming based on detailed analysis of local industry needs, student demand, and the delivery capabilities and strengths of the current programs within the District and at area institutes of post-secondary education/training. This analysis was reinforced in both focus groups and surveys with Worcester Public School (WPS) students at Doherty Memorial High School. The analysis resulted in the selection of three areas of new programming for the new Doherty Memorial High School: Programming and Web Development, Construction Craft Laborer, and Marketing/Finance.

Labor Market Demand

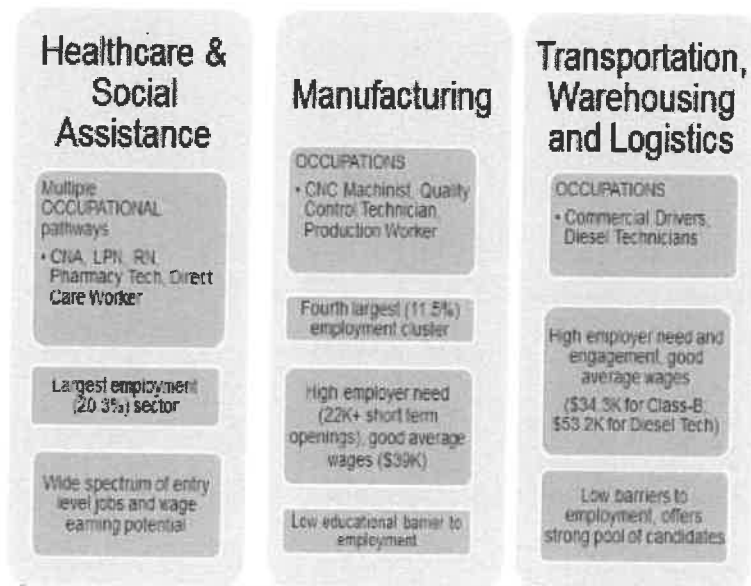
The District team began with a review of the Central Massachusetts Regional Workforce Blueprint, dated April 6, 2018 to identify local industry demand. This document was created by the Local Workforce Development Board (MassHire) in partnership with local education and economic development partners to coordinate strategic workforce priorities. The specific goals of this panel was to:

- Identify the growing industries and occupations to be prioritized by system partners that will assist in the economic growth of the region.
- Develop a joint set of action steps to address skills gaps within these industries/occupations.
- Align and drive programming and service delivery across the three secretariats to meet the needs of the priority industries/occupations.
- Help more residents gain the credentials, education and job skills needed for successful careers within high-demand career pipelines.

The planning team met frequently to refine the population and labor market data used to make final decisions about priority industry sectors, priority occupations within those sectors, educational opportunities and economic development issues.

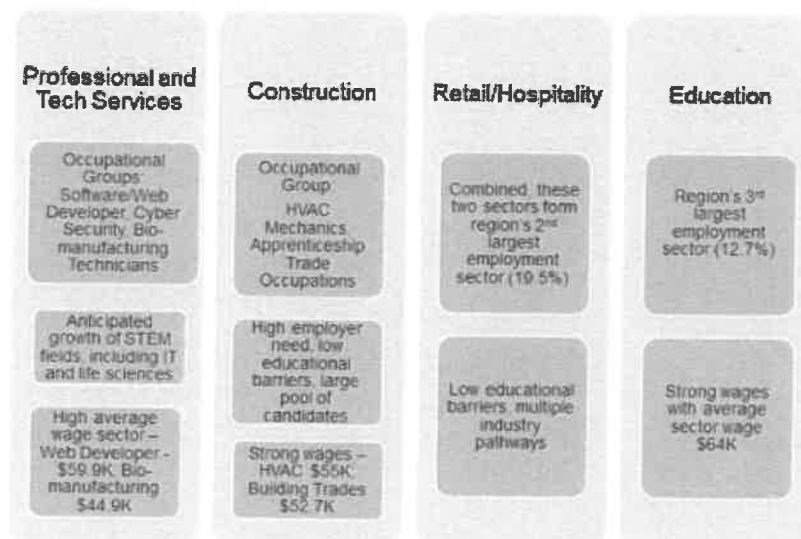
Using State and regional criteria set by the planning team, the following three industries were deemed priorities for the region:

1. Healthcare and Social Assisting
2. Manufacturing
3. Transportation, Warehousing, and Logistics



Additionally, the panel identified the following industries as critical for the region:

1. Professional and Tech Services
2. Construction
3. Retail and Hospitality
4. Education



Also from the Central MA Regional Blueprint:

“Industries currently facing the most significant workforce development challenges:

The planning team has identified Healthcare & Social Assistance, Manufacturing, and Transportation, Warehousing, and Logistics as facing the most significant workforce development challenges, followed by the critical industries identified above, Professional and Technical Services, Construction, Retail/Hospitality, and Education.”

The District deemed that the three priority industries were adequately covered through existing programming. Currently Allied Health career skills training is present through Chapter 74 programs at both WTHS and North High School as well as through the Innovations Pathway Program with a combined enrollment of 421 students (113 at WTHS, 16 at IP, and 292 at North). Manufacturing skills training is present with a Chapter 74 program at WTHS as well as in the Innovations Pathway Program with a combined enrollment of 43 students (34 at WTHS and 9 at IP). While a relatively low enrollment, the District and its partners continue to drive enrollment through various educational and advertisement strategies (i.e. Career Awareness, Manufacturing Day, tours, mailings, exploratory presentations, etc.). Lastly Transportation skills training is present through Chapter 74 Diesel Technology program at South Community High School, Chapter 74 Automotive Technology program at WTHS and a Career Technical Education (CTE) Automotive program at Burncoat High School with combined enrollment of 253 students (103 at WTHS, 42 at Burncoat, and 108 at South).

With the three priority industries being addressed sufficiently, the District turned its attention to the four critical industries for Central Massachusetts. A review of these industries and the relevant occupations was conducted against current educational pathways within the District as well as surrounding educational institutions. A review of current District offerings for each of the critical industries revealed the following programming:

- Professional and Tech Services
 - Chapter 74 Programming and Web Development at WTHS - 30 students
 - Chapter 74 Information Support Services and Networking at WTHS - 28 students
 - Information Technology Program in the Innovations Pathway Program - 14 students
- Construction
 - Chapter 74 Carpentry Program at WTHS - 71 students
 - Chapter 74 Plumbing Program at WTHS - 54 students
 - Chapter 74 Electrical Program at WTHS - 74 students
 - Chapter 74 HVAC/R Program at WTHS - 27 students
 - Chapter 74 Painting Design and Decorating Program at WTHS - 72 students
- Retail and Hospitality
 - Chapter 74 Marketing Finance and Banking Program at WTHS - 57 students
 - Chapter 74 Hospitality and Restaurant Management Program at WTHS - 73 students
- Education
 - Chapter 74 Early Childhood Education Program at WTHS - 76 students
 - Chapter 74 Early Childhood Education Program at South Community High School - 40 students

Currently the District offerings for skills training in the four critical industries is primarily restricted to students enrolled at WTHS (10 of the 12 programs are housed at WTHS). At this time, WTHS is at capacity for student enrollment further restricting access for students that did not get accepted to WTHS from accessing opportunities for skills training in these critical industries.

A review of the Pathway Mapping Tool, on the MA DESE Website revealed the following pathways in the vicinity of Doherty Memorial High School for:

- **Programming Web Development**
 - WTHS - Chapter 74 - 30 students
 - Baypath Regional High School - Chapter 74 - 57 students
 - Milford High School - Non-Chapter 74 - 179 Students
- **Marketing/Finance**
 - WTHS - Chapter 74 - 57 students
 - Millbury High School - Non-Chapter 74 - 9 students
 - Milford High School - Non-Chapter 74 - 183 students
- **Construction Craft Laborer**
 - None in central MA, needed to include search of all programming statewide
 - Medford Vocational High School - Chapter 74 - 6 students
 - Putnam Vocational High School - Non-Chapter 74 - 17 students
 - BMC Durfee High School - Non-Chapter 74 - 51 students

The District selection of the above three programs for inclusion in the new Doherty High School is in direct alignment with the Central MA Region Blueprint. These programs meet the State criteria for priority industries and occupations:

- High employer demand
- High demand and high wage
- Talent Gaps
- Career Pathways

Additionally, the programs fit the regional planning teams additional criteria to identify industries and occupations that best fit with higher need job seekers:

- Strong Employer engagement - employers willing to become actively engaged in working with workforce stakeholders
- Low barriers to employment - employment opportunities that do not exclude based on barriers to employment such as those that exclusively seek bachelor's degree or higher
- Alignment with high need job-seeker populations - employment opportunities available to those that are ready to enter the workforce or those with the ability to enter with short term education, training, or support.

Programing Web Development

Students enrolled in this program will receive skills training that falls under the Professional and Tech Services industries. Occupations in this industry include software, and Web developers, as well as Cyber security and IT technicians. Students will have the opportunity to earn industry recognized credentials, such as:

- **CertiPort MTA Certifications**
 - **Development (Programming)**
 - Exams Software Development Fundamentals (VB or C#)
 - Web Development Fundamentals (VB or C#)
 - Windows Development Fundamentals
 - .Net Fundamentals
 - Mobile Apps Development Fundamentals
 - Gaming Development Fundamentals
 - HTML 5 Application Development Fundamentals
 - Database Administration Exam Database Administration Fundamentals
 - IT Pro Exams Networking Fundamentals Windows OS Fundamentals
 - Security Fundamentals
 - Server Admin Fundamentals
- **CompTIA Certifications**
 - A+
 - CDIA+
 - CTP+
 - CTT+
 - Linux+
 - Network+
 - PDI+
 - Project+
 - Security+
 - Storage+
 - Server+
 - Cloud Essentials
 - Green IT
 - Healthcare IT
 - IT for Sales
 - IT Fundamentals

This industry enjoys an anticipated growth in STEM and IT fields and offers high average wages (Web Developers earn a mean annual salary of \$108.4K according to job postings for the Worcester Metropolitan Statistical Area on Burning Glass).

Construction Craft Laborer

Skills training received in this program fits the Construction Industry and Occupations. These occupations (so called 'hard trades') include Apprenticeship trades, high employer need and

engagement, strong wages (Building trades \$52.7K) and little formal education presenting low barriers. Workers in these trades are often affiliated with organized labor unions and employer sponsored associations offering apprenticeship opportunities leading to post secondary education and portable industry credentialing. Additionally, as evidenced by the employer survey conducted for the Central MA Regional Blueprint, entry level laborer is the number one occupation facing significant employee/candidate shortages.

Students enrolled in this program can earn the following industry recognized credentials:

- with successful completion of High School Program
 - Scaffold Builder – User
 - OSHA 10 Hour Construction Outreach
 - OSHA 30 Hour Construction Outreach
- with successful completion of High School Program and participation in Apprenticeship Program
 - American Welding Society – Vertical Fill-it Certification
 - American Welding Society – Horizontal Fill-it Certification
 - American Welding Society – Overhead Fill-it Certification
 - American Crane Institute Hoisting & Rigging Certification
 - Microbial Remediation
 - Department of Transportation Flagging
 - Masonry Contractors Association of America
 - Forklift Trainer Certification – Rough Terrain
 - Marr Elevator Work Platform Certification

Marketing/Finance

This program provides skills training that fits with the Retail/Hospitality industry, which combined is the region's 2nd largest employment sector (19.5%). Marketing has evolved with the changes that the internet has brought to business. Professionals working in the marketing industry must be well rounded in sales, management, advertising, customer service, cultural diversity, and both qualitative and quantitative analysis. While no nationally-recognized credential is available for these skill sets, students can earn the following industry recognized credentials:

- Occupational Safety and Health Administration (OSHA) – Ten-hour General Industry
- Certification • National Retailers Federation Customer Service Certification

This industry has low educational barriers and multiple industry pathways (see appendix). Additionally, as identified in the Central MA Regional Blueprint survey sent to over 400 employers, Marketing and Sales growth showed prominently in the top three challenges facing employers, indicating a need for employees with strong marketing and sales skills. This survey also revealed that sales staff rank in the top ten occupations facing a significant shortage of employees/candidates.

Each of the above proposed programs also enjoy strong regional employer engagement as well as post secondary educational pathways leading to multiple industry pathways as evidenced by both the Program Advisory Committee members and industry pathways (see appendix).

Student Demand

The Worcester Public Schools' students utilize an online college and career readiness suite of tools called Naviance. In Naviance, students as early as middle school (Grade 6) begin their preparations for ultimately entering the workforce, whether directly upon graduation or, instead by continuing their education into some sort of post-secondary institution before then seeking employment. Within Naviance, students engage in varied structured learning activities - activities with one goal of aligning their interests and skill sets to occupations. The larger goal is to expose students to a wider range of current and expected employment opportunities, as often students are limited in their knowledge of the opportunities available to them. One set of learning activities, essentially a series of personality profiles, generates for students lists of occupations that match their current skills. Another set of tools looks at student interests-i.e. desired occupations-and identifies for students the suggested coursework needed for success in that specific field. These suggestions includes both secondary and post-secondary, if applicable, courses and trainings.

The Worcester Public Schools administration is able to generate reports from these Naviance tools. These reports allow the staff to export the results, searches, suggestions, profiles, etc. of the students, and from this the school personnel can make informed educational decisions with students.

Doherty currently offers a non-Chapter 74 CTE program in Marketing. During the 2018-2019 school year, there were 80 students taking the Marketing 1 course, with 3 sections offered. This course was limited to three sections due to the limitations in available staffing. For the 2019-2020 school year, three sections are again scheduled, with a similar student population. Currently, only students whose home school is Doherty are eligible to participate in this CTE program, and again Doherty can only offer three sections of this course currently. With additional personnel and space, the proposed CVTE Marketing, Management and Finance program will be able to serve the demand from Doherty's own population, but also draw on interested students from across the district.

Doherty also currently offers a non-CVTE, non-CTE sequence of courses in computer science and computer programming. Students can take the elective, and sequential, Computer Science I and Computer Science II courses. During the 2018-2019 school year, there were 90 students taking the Computer Science I course, with 3 sections offered. This course was limited to three sections due to the limitation of available staff, as well as by limited technology. There are currently 2 computer labs outfitted available for computer science and computer programming work that contain the necessary specifications to support the curriculum. In addition, given the nature of the curriculum, the capacity of each section is determined by the number of desktop computers within each room. While more readily available, the Chromebooks used within the school are not compatible with the software and associated hardware needed.

During the 2018-2019 school year, the school offered 2 sections of the Introduction to Computer Programming course, with 49 students enrolled. Again, the available staff and technology limited the number of sections scheduled, and therefore limited the number of students who could engage with this curriculum. Year to year, the school is running these Computer Science and Computer Programming courses at capacity. During the 2018-2019 school year, based on student interest and with a strong foundation provided by these two pathways, Doherty scheduled three sections of AP Computer Science Principles, with a combined load of 70 students. The number of interested students continues to grow.

Given the sustained interest in both introductory pathways, along with the large interest in the AP Computer Science Principles course, Doherty is running the AP Computer Science A course, for which these introductory courses, along with the AP Computer Science Principles course, serve to provide the pre-requisite skills and content knowledge necessary to successfully engage with the curriculum.

Additionally, the district's Innovation Pathways Program, which provides vocational instructional opportunities for students from the comprehensive high schools, including Doherty, offers a program focusing on Information Technology, Programming, and Web Essentials. While this program is entering its second year, there are already more applicants for these IT based trades for which there is space. The Innovation Pathways Program serves students from across the district, and as such each school is allotted a set number of positions within each trade. While this program is fortunately running at capacity, there is still a demonstrable need for more programming. This need is evident from across the district, as again each comprehensive school effectively had more applicants for which the Innovation Pathways Program course could safely service.

With additional personnel and space, the proposed CVTE Programming and Web Development program will be able to serve the demand from Doherty's own population, but also draw on interested students from across the district.

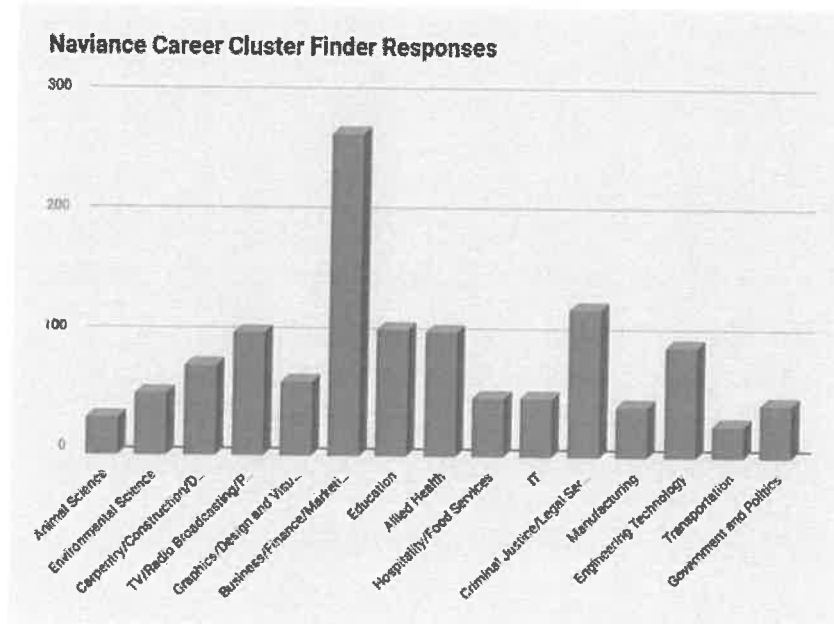
As previously indicated, the District reviewed existing data from current CTE/CVTE offerings as well as student focus groups and student surveys to gauge student interest in the proposed new CVTE/CTE offerings.

Existing data indicates that there has consistently (last 5+ years) been over 400 students 'waitlisted' for entry into current District CVTE/CTE programs. It is clear that students want the opportunity to be both College and Career Ready. However, to confirm student interest in future offerings, student focus groups and an electronic survey of students were conducted specifically at Doherty Memorial High School.

The student focus groups were conducted in SY 2017-2018 as part of the planning process for the Innovation Pathways Program offerings. Students at Doherty Memorial High School were asked to rank four specific programs (based on Central MA Regional Blueprint priority industries) from 1 through 5 with 5 assigned the highest interest. Results of these focus groups indicate that of the 130+ students surveyed 37% and 40% ranked Information Technology and Construction programming, respectively, with either a 4 or a 5.

To further gauge student interest an electronic survey was administered to 8th grade students at Forest Grove Middle School (feeder school to Doherty) as well as 9th and 10th grade Doherty students. The survey was administered through Naviance and garnered 1,255 student responses. As indicated in the chart presented below, Business/Marketing/Finance was overwhelmingly the program field of choice.

The following chart represents data gathered from the Naviance Career Cluster Finder and is based on the responses of 1255 students. These students include the 9th and 10 grade from Doherty and 8th grade at Forest Grove Middle School.



Part of the mission of the Worcester Public Schools is to provide each student with opportunities to engage with a rigorous, academically excellent curriculum. Further, the faculty and staff place an emphasis on educating the whole child. For many students, there is a demonstrable need for vocational opportunities beyond what is currently offered within Doherty, and the Worcester Public Schools as a district. This need is evident based on several factors:

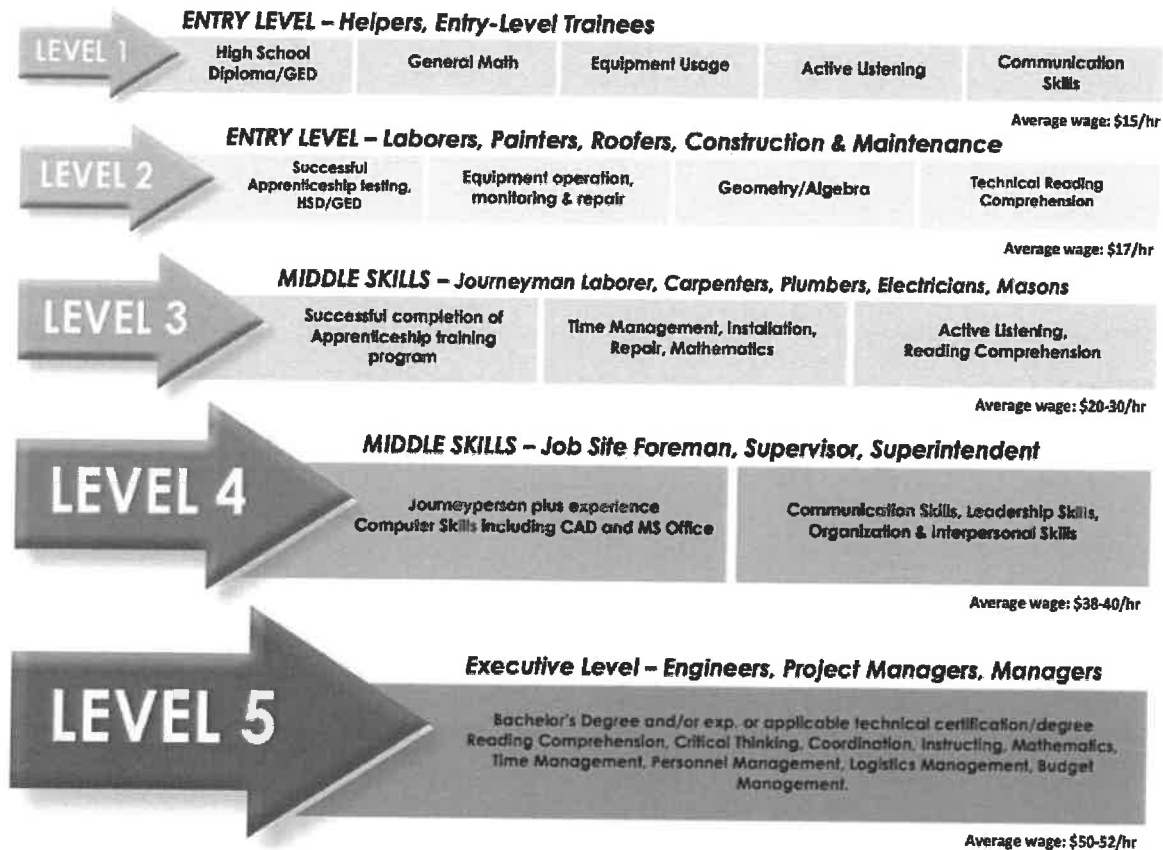
- there is more student interest in Doherty's current CVTE/CTE programs than there is room available;
- there is more student interest in Worcester's vocational/technical high school than there is room available;
- labor market trends, as identified in the Central MA Regional Blueprint, show a favorable projection in many occupations, notably those occupations for which Doherty proposes to create and implement CVTE/CTE programming;
- professionally, educators recognize the value of providing skills based curriculum, in addition to an emphasis on college preparatory academics; and
- students clearly desire a pathway to college and/or a career. Their occupational interests are varied, and there are currently gaps in their desired interests with what Doherty and the Worcester Public Schools currently provides.

The Worcester Public School population is steadily increasing. With investments in the city infrastructure, housing and entertainment, and the educational offerings available for families, the expected rise in the student population necessitates a wider range of offerings.

In conclusion, the creation of additional CVTE/CTE offerings within the new Doherty Memorial High School in the areas of Programming/Web Development, Marketing/Finance, and Construction Craft Laborer is in alignment with local workforce needs and projections as evidenced by the data presented from the Central MA Regional Blueprint . The proposed CVTE/CTE programming meets student demands and interest in pursuing career pathways in Information Technology, Construction, and Marketing/Finance. Additionally, these programs enjoy strong employer engagement leading to opportunities for internships/co-operative education and hands on learning to reinforce and build upon a students employability and technical skills. As well as, the opportunity to earn and learn. The proposed programs align with registered pre-apprentice and apprenticeship programs again offering students the opportunity to earn industry recognized credentials. Lastly, for students seeking it, these programs feed pathways to higher education with local post-secondary institutes. The latter is often with accumulated college credit earned while in high school through dual enrollment and articulation agreements with Quinsigamond Community College, Worcester State University and other local colleges/universities/technical schools.

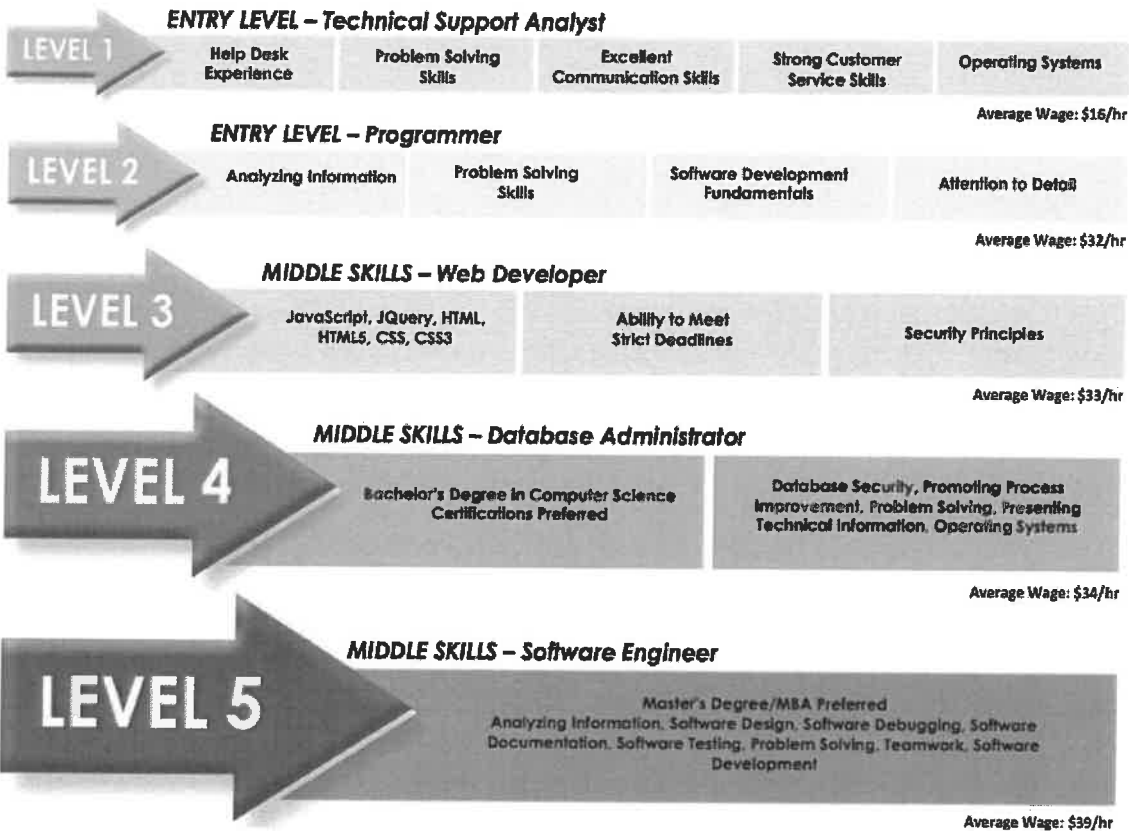
Appendix - Career Pathways

Construction



Note: All salary data taken from Salary.com for Worcester, MA area.

Information Technology



Note: All salary data taken from Salary.com for Worcester, MA area.

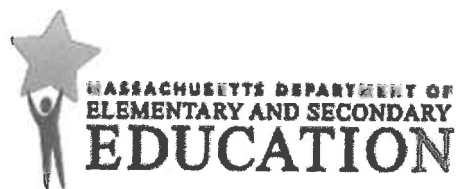
Retail



Note: All salary data taken from Salary.com for Worcester, MA area.

C. PROGRAMMING & WEB DEVELOPMENT

1. DESE Part A Application
2. Initial Program Advisory
Committee Form
3. Total Hours of Instruction
Worksheet



Part A-Preliminary Application Package for Vocational Technical Education New Program Approval M.G.L.c.74

Updated: August 2018



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New 2018 Part A Prelim

Chapter 74 New Program Application PART A (Preliminary)

Disclaimer: Sections of law, regulations and guidelines are referenced in this document. The official copies of the law, regulations and guidelines as filed with the Massachusetts Office of the Secretary of State are implemented by the Massachusetts Department of Elementary and Secondary Education (DESE). The Massachusetts Department of Elementary and Secondary Education does not represent this document as a replacement for the official law, regulations and guidelines documents.

Overview

The Application for Vocational Technical Education New Program Approval is submitted by a school district that seeks approval of a new vocational technical education program pursuant to Massachusetts General Law Chapter 74 (M.G.L.c.74) (Chapter 74) and the Vocational Technical Education Regulations (603 CMR 4.00). The application consists of **Part A (Preliminary)** and **Part B (Concluding)**. An approved program is known as a Chapter 74-approved vocational technical education program. **State aid is calculated on enrollment in programs that have approval status on November 1 of any given year.** The Massachusetts Department of Elementary and Secondary Education cannot retroactively approve programs after November 1 for state aid or any other purpose.

Part B is not to be submitted unless the district has been notified in writing by the Department to proceed.

Part A

In order to ensure that school districts interested in developing new Chapter 74 programs are first establishing key foundational elements for those programs, the Department has created a three-step process.

1. Submission of an **Intent to Apply** comprises the first step. Submission of an Intent to Apply does not obligate the submission of a Part A application, but all Part A applicants must have first submitted an Intent by the published deadline.
2. The elements found in the **Part A (Preliminary)** Application Form below comprise the second step.
3. Applicants whose Part A applications are judged viable will be invited to submit **Part B (Concluding)** applications, the third step in the process.

Before Submitting Part A

Before submitting a Part A (Preliminary) application, school districts should undertake the following tasks.

1. *Create a program advisory committee (PAC).* The program advisory committee, including representatives from industry, postsecondary education, and organized labor (if applicable) will offer guidance and insight as potential applicants explore the feasibility of opening any new program. This body should play a leading role in examining labor market demand and student demand data in the context of other local considerations. The strongest new program

applications are those where industry experts and other partners are involved from the earliest stages of new program development. The Part A application requires that you provide evidence of an initial PAC which may lack some required members. An updated PAC listing with all required members must be submitted in Part B.

2. *Arrange a meeting between your Program Advisory Committee and a representative from the Office for College, Career, and Technical Education.* OCCTE staff can assist business/industry representatives and school leaders in understanding how to determine if the new program under consideration is feasible.
3. *Measure student demand for the program.* It is the obligation of applicant districts to make a compelling case that students are interested in enrolling in proposed programs. If the school or district currently offers the program as a non-Chapter 74 Perkins-funded program and reports students in the Commonwealth's Student Information Management System (SIMS), enrollment information for previous years may be used as historical evidence of student demand. Historical enrollment data from courses that will become part of the proposed program and surveys of middle school and/or ninth grade students are legitimate methods of illustrating student demand. Applicant districts are free to present any and all evidence to demonstrate student demand. Additionally, if the proposed program duplicates one currently offered at the regional vocational technical school of which the applicant district is a member and/or the applicant's local county agricultural school, the applicant district must provide evidence that either/both of those school districts cannot accommodate student demand.
4. *Ensure that the program you are considering is of sufficient length.* The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating student. Consequently, please make every effort to ensure that the entire program you are proposing will provide students with no less than 900 hours of program-related instruction. Program-related instruction includes:
 - "Shop" time;
 - Program-related classroom time
 - Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
 - Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6
5. *Address any outstanding items.* A new program application can be delayed by outstanding Coordinated Program Review corrective action plans or progress reports related to admissions or safety, or outstanding civil rights Methods of Administration (MOA) voluntary action plans.

Timeline for Chapter 74 Applications

Notice of Intent to Apply: A Notice of Intent to Apply may be submitted at any time on or prior to **5:00 PM** on the last Friday in October of any calendar year. For this application cycle, that date is **October 26, 2018**. Notice is accomplished by completing a brief survey. Notice of Intent does not obligate submission of a Part A (Preliminary) application, but no Part A applications will be accepted if a Notice of Intent to Apply has not been submitted by the aforementioned deadline.

Part A (Preliminary) applications are accepted no later than **5:00 PM** on the second Friday of December following. For this application cycle, that date is **December 14, 2018**.

Part B (Concluding) applications are only accepted upon invitation by DESE after Department review of the Part A application. Part B applications are due no later than **5:00 PM** on the first Friday of April following. For this application cycle, that date is **April 5, 2019**.

School District and Program Information

School District Name:

Worcester Public Schools

School Name:

Doherty Memorial High School

LEA #

0348

What is the VTE Framework title for the proposed program?

Programming & Web Development

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Cosmetology programs must **first** be approved by the Massachusetts Board of Registration of Cosmetology and Barbering. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of Registry in Dentistry oversees the licensing of dental health care professionals in the state of Massachusetts, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: If the Early Education and Care program under consideration will include an onsite early education facility, **that facility must be licensed** by the Massachusetts Department of Early Education and Care (DEEC). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Massachusetts Board of State Examiners of Electricians examines and licenses electrician candidates, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Health Assisting programs must **first** be approved by the Massachusetts Department of Public Health (DPH). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of State Examiners of Plumbers and Gas Fitters regulates the practice of plumbing occupations in the Commonwealth of Massachusetts. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Practical Nursing programs must **first** be approved by the Massachusetts Board of Registration in Nursing. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

What is the program name (if different from VTE Framework Title)?

Programming & Web Development

Will this program be offered as a SECONDARY program or a POSTSECONDARY program?

☒ Secondary

☐ Postsecondary

Will this program, if approved, offer combined instruction with any other Chapter 74 programs already in operation?

☒ Yes

☐ No

Who is the school district contact person for this application?

Sally Maloney

What is the title of the school district contact person for this application?

Principal

What is the telephone number of the school district contact person for this application?

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

What is the email address of the school district contact person for this application?

maloneys@worcesterschools.net

Name of school district superintendent

Maureen Binienda

Telephone number of school district superintendent

508-799-3117

xxx-xxx-xxxx (include extension # if applicable)

Email address of school district superintendent

biniendam@worcesterschools.net

Name of school principal

Sally Maloney

Telephone number of school principal

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

Email address of school principal

maloneys@worcesterschools.net

Name of vocational technical education director (if applicable)

Patricia Suomala

Telephone number of vocational technical education director (if applicable)

508-799-1140

xxx-xxx-xxxx (include extension # if applicable)

Email address of vocational technical education director (if applicable)

suomalap@worcesterschools.net

List any colleges/universities or apprenticeship training programs affiliated with the program

Becker College

Worcester Polytechnic Institute

List any areas of specialization in the proposed program

IT Fundamentals

Computer Science

Software Development

Cyber Security

Web Development

Statement of Assurances and Signature Block

Please upload a scanned Statement of Assurances with Superintendent's signature.

See attached

required

Download the Statement of Assurances form at <http://www.doe.mass.edu/cte/programs/timeline.html>

PART A DOCUMENTATION

CRITERION 1: Student and Labor Market Demand

[Legal Citation: M.G.L.c.74, §1,2 & 4; 603 CMR 4.03(1)(c)(1) and 4.04(1)]

REQUIREMENT: 1a. In order to receive vocational technical education program approval, the Superintendent shall submit an application to the Commissioner that provides clear evidence of secondary student and labor market demand for the program and demonstrates compliance with the approval criteria.

PLEASE NOTE: In cases where the proposed program aligns with regional industry-sector and/or occupational priorities, the applicant does not need to provide additional evidence of labor market demand but is still required to provide evidence of sufficient student demand. For more information, see the section above, **Before Submitting Part A**, and the section on student demand in the document "*Guidelines for demonstrating student and labor market demand.*"

If the proposed program *does not* align with regional priorities, it is the obligation of the applicant to make a compelling case for the viability of the program with respect to labor market and student demand. Please refer to the document "*Guidelines for demonstrating student and labor market demand*." Please also consider asking your local MassHire Board for assistance.

(NOTE: Massachusetts is in the process of re-branding its Workforce Investment Boards, which are also known variously as Regional Employment Boards, or Workforce Development Boards. The new appellation, which will begin appearing in late Summer and early Fall 2018, is MassHire Board.)

1. Submit clear evidence of student and labor market demand for the program.

See attached

required

Download "Guidelines for preparing evidence of secondary student and labor market demand" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 2: Organization (Program Advisory Committee)

[Legal Citations: M.G.L.c.74, §2 & 6; 603 CMR 4.03 and 4.04(1)(c)1]

REQUIREMENT: 2a. There must be a Program Advisory Committee for the proposed program.

2a. Submit an initial Program Advisory Committee Form for the proposed Vocational Technical Education program. [NOTE: A fully completed form with all required members must be submitted as part of the Part B application.]

See attached

required

View or download the document "Program Advisory Committee for VTE Form" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 3: Sufficient Time to Address Vocational Technical Education Frameworks

REQUIREMENT: The program should attempt to provide students with a total of 900 or more hours of program-related instruction.

3. Submit a completed Total Hours of Instruction worksheet for the proposed VTE program.

See attached

required

View or download the document "Total Hours of Instruction Worksheet" at <http://www.doe.mass.edu/cte/programs/timeline.html>.

Program Advisory Committee for Vocational Technical Education Form

A school district official must complete this form and submit it with the Application for Vocational Technical Education New Program Approval M.G.L.c.74. Massachusetts Department of Elementary and Secondary Education staff will then review for compliance with the Vocational Technical Education Regulations.

District: Worcester Public Schools		School Year: 2019-2020		Program Name: Programming/WebDev				
Facilitator: (May be school district staff) Sally Maloney								
Provide the first and last name of all committee members. (NOTE: School district staff from ANY school district may not be members of the Program Advisory Committee. Do not list them below.) Provide the address for each member including street name & number, city/town, state, zip code, daytime or cell phone telephone number and email address.		Provide the company name for each business/industry representative; the organizational title for the organized labor representative; the name of the school/college/university for the postsecondary representative and the organizational title for the registered apprenticeship program representative. ¹ Organized Labor representation is not required on individual PACs if the school's General Advisory Committee includes such representation. ² Postsecondary representation is required on all PACs. That requirement can be met with representatives of postsecondary education institutions or registered apprenticeship programs. ³ Prior to the approval of a new program, the parent/guardian and student representation requirement may be met by involving one or more parents and students not yet associated with the program. Their role is to ensure that the perspectives of parents and students are considered in the development of the program.						
		COMPOSITION (check as applicable)		TYPE OF REPRESENTATION (check one box for each name listed)				
		Person with Disabilities Racial or Linguistic Minority Non-traditional by gender (if applicable)		Business/Industry Organized Labor ¹ Postsecondary Institution ² Registered Apprenticeship ² Parent/Guardian ³ Student ³				
Heider Machado, CEO/CISO Machado Consulting 32 Franklin Street Worcester, MA 01608 1-508-453-4700 heider@machadoconsulting.com				X				

List chairperson here

[illegible]

Total Hours of Instruction Worksheet

Name of School:	Doherty Memorial High School
Name of Program:	Programming and Web Development

The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating students. Program-related instruction includes:

- “shop” time;
- Program-related classroom time
- Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
- Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6.

	SHOP CLASS (including work-based learning during shop hours)	SHOP-RELATED CLASS	OTHER CLASS	OTHER CLASS	OTHER CLASS
NAME OF OTHER CLASS			example: Strand 5: Management & Entrepreneurship taught in separate class		
PROGRAM YEAR 1	135	135	0	0	0
PROGRAM YEAR 2	135	135	0	0	0
PROGRAM YEAR 3*	135	135	0	0	0
PROGRAM YEAR 4*	135	135	0	0	0
COLUMN TOTALS	540	540	0	0	0

* If applicable

GRAND TOTAL	1080
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If the district believes that it has designed a program that will provide students with the requisite experience and training that does not meet this minimum, the district should contact the Department to discuss the proposed program design prior to submitting a Part A application.

D. MARKETING & FINANCE

1. DESE Part A Application
2. Initial Program Advisory
Committee Form
3. Total Hours of Instruction
Worksheet



Part A-Preliminary Application Package for Vocational Technical Education New Program Approval M.G.L.c.74

Updated: August 2018



MASSACHUSETTS DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
Office for College, Career, and Technical Education
75 Pleasant Street, Malden, MA 02148-4906
Phone 781-338-3901 TTY: N.E.T. Relay 800-439-2370
www.doe.mass.edu/cte

New 2018 Part A Prelim

Chapter 74 New Program Application PART A (Preliminary)

Disclaimer: Sections of law, regulations and guidelines are referenced in this document. The official copies of the law, regulations and guidelines as filed with the Massachusetts Office of the Secretary of State are implemented by the Massachusetts Department of Elementary and Secondary Education (DESE). The Massachusetts Department of Elementary and Secondary Education does not represent this document as a replacement for the official law, regulations and guidelines documents.

Overview

The Application for Vocational Technical Education New Program Approval is submitted by a school district that seeks approval of a new vocational technical education program pursuant to Massachusetts General Law Chapter 74 (M.G.L.c.74) (Chapter 74) and the Vocational Technical Education Regulations (603 CMR 4.00). The application consists of **Part A (Preliminary)** and **Part B (Concluding)**. An approved program is known as a Chapter 74-approved vocational technical education program. **State aid is calculated on enrollment in programs that have approval status on November 1 of any given year.** The Massachusetts Department of Elementary and Secondary Education cannot retroactively approve programs after November 1 for state aid or any other purpose.

Part B is not to be submitted unless the district has been notified in writing by the Department to proceed.

Part A

In order to ensure that school districts interested in developing new Chapter 74 programs are first establishing key foundational elements for those programs, the Department has created a three-step process.

1. Submission of an **Intent to Apply** comprises the first step. Submission of an Intent to Apply does not obligate the submission of a Part A application, but all Part A applicants must have first submitted an Intent by the published deadline.
2. The elements found in the **Part A (Preliminary)** Application Form below comprise the second step.
3. Applicants whose Part A applications are judged viable will be invited to submit **Part B (Concluding)** applications, the third step in the process.

Before Submitting Part A

Before submitting a Part A (Preliminary) application, school districts should undertake the following tasks.

1. *Create a program advisory committee (PAC).* The program advisory committee, including representatives from industry, postsecondary education, and organized labor (if applicable) will offer guidance and insight as potential applicants explore the feasibility of opening any new program. This body should play a leading role in examining labor market demand and student demand data in the context of other local considerations. The strongest new program

applications are those where industry experts and other partners are involved from the earliest stages of new program development. The Part A application requires that you provide evidence of an initial PAC which may lack some required members. An updated PAC listing with all required members must be submitted in Part B.

2. *Arrange a meeting* between your Program Advisory Committee and a representative from the Office for College, Career, and Technical Education. OCCTE staff can assist business/industry representatives and school leaders in understanding how to determine if the new program under consideration is feasible.
3. *Measure student demand for the program.* It is the obligation of applicant districts to make a compelling case that students are interested in enrolling in proposed programs. If the school or district currently offers the program as a non-Chapter 74 Perkins-funded program and reports students in the Commonwealth's Student Information Management System (SIMS), enrollment information for previous years may be used as historical evidence of student demand. Historical enrollment data from courses that will become part of the proposed program and surveys of middle school and/or ninth grade students are legitimate methods of illustrating student demand. Applicant districts are free to present any and all evidence to demonstrate student demand. Additionally, if the proposed program duplicates one currently offered at the regional vocational technical school of which the applicant district is a member and/or the applicant's local county agricultural school, the applicant district must provide evidence that either/both of those school districts cannot accommodate student demand.
4. *Ensure that the program you are considering is of sufficient length.* The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating student. Consequently, please make every effort to ensure that the entire program you are proposing will provide students with no less than 900 hours of program-related instruction. Program-related instruction includes:
 - "Shop" time;
 - Program-related classroom time
 - Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
 - Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6
5. *Address any outstanding items.* A new program application can be delayed by outstanding Coordinated Program Review corrective action plans or progress reports related to admissions or safety, or outstanding civil rights Methods of Administration (MOA) voluntary action plans.

Timeline for Chapter 74 Applications

Notice of Intent to Apply: A Notice of Intent to Apply may be submitted at any time on or prior to **5:00 PM** on the last Friday in October of any calendar year. For this application cycle, that date is **October 26, 2018**. Notice is accomplished by completing a brief survey. Notice of Intent does not obligate submission of a Part A (Preliminary) application, but no Part A applications will be accepted if a Notice of Intent to Apply has not been submitted by the aforementioned deadline.

Part A (Preliminary) applications are accepted no later than **5:00 PM** on the second Friday of December following. For this application cycle, that date is **December 14, 2018**.

Part B (Concluding) applications are only accepted upon invitation by DESE after Department review of the Part A application. Part B applications are due no later than **5:00 PM** on the first Friday of April following. For this application cycle, that date is **April 5, 2019**.

School District and Program Information

School District Name:
Worcester Public Schools

School Name:
Doherty Memorial High School

LEA #
0348

What is the VTE Framework title for the proposed program?
Marketing/Finance

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Cosmetology programs must **first** be approved by the Massachusetts Board of Registration of Cosmetology and Barbering. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of Registry in Dentistry oversees the licensing of dental health care professionals in the state of Massachusetts, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: If the Early Education and Care program under consideration will include an onsite early education facility, **that facility must be licensed** by the Massachusetts Department of Early Education and Care (DEEC). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Massachusetts Board of State Examiners of Electricians examines and licenses electrician candidates, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Health Assisting programs must **first** be approved by the Massachusetts Department of Public Health (DPH). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of State Examiners of Plumbers and Gas Fitters regulates the practice of plumbing occupations in the Commonwealth of Massachusetts. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Practical Nursing programs must **first** be approved by the Massachusetts Board of Registration in Nursing. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

What is the program name (if different from VTE Framework Title)?
Marketing/Finance

Will this program be offered as a SECONDARY program or a POSTSECONDARY program?

☒ Secondary

☐ Postsecondary

Will this program, if approved, offer combined instruction with any other Chapter 74 programs already in operation?

☒ Yes

☐ No

Who is the school district contact person for this application?

Sally Maloney

What is the title of the school district contact person for this application?

Principal

What is the telephone number of the school district contact person for this application?

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

What is the email address of the school district contact person for this application?

maloneys@worcesterschools.net

Name of school district superintendent

Maureen Binienda

Telephone number of school district superintendent

508-799-3117

xxx-xxx-xxxx (include extension # if applicable)

Email address of school district superintendent

biniendam@worcesterschools.net

Name of school principal

Sally Maloney

Telephone number of school principal

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

Email address of school principal

maloneys@worcesterschools.net

Name of vocational technical education director (if applicable)

Patricia Suomala

Telephone number of vocational technical education director (if applicable)

508-799-1140

xxx-xxx-xxxx (include extension # if applicable)

Email address of vocational technical education director (if applicable)

suomalap@worcesterschools.net

List any colleges/universities or apprenticeship training programs affiliated with the program

Quinsigamond Community College

Nichols College

List any areas of specialization in the proposed program

Customer Service

Cultural Diversity

Marketing – traditional/electronic (i.e. Web based/social media)

Financial Literacy

Electronic Database – data tracking/mining for inventory, sales, decisioning

Cost Benefit Analysis

Logistics/Channel Management

Accounting Practices and procedures

Entrepreneurship

Statement of Assurances and Signature Block

Please upload a scanned Statement of Assurances with Superintendent's signature.

See attached

required

Download the Statement of Assurances form at <http://www.doe.mass.edu/cte/programs/timeline.html>

PART A DOCUMENTATION

CRITERION 1: Student and Labor Market Demand

[Legal Citation: M.G.L.c.74, §1,2 & 4; 603 CMR 4.03(1)(c)(1) and 4.04(1)]

REQUIREMENT: 1a. In order to receive vocational technical education program approval, the Superintendent shall submit an application to the Commissioner that provides clear evidence of secondary student and labor market demand for the program and demonstrates compliance with the approval criteria.

PLEASE NOTE: In cases where the proposed program aligns with regional industry-sector and/or occupational priorities, the applicant does not need to provide additional evidence of labor market demand but is still required to provide evidence of sufficient student demand. For more information, see the section above, **Before Submitting Part A**, and the section on student demand in the document *"Guidelines for demonstrating student and labor market demand."*

If the proposed program *does not* align with regional priorities, it is the obligation of the applicant to make a compelling case for the viability of the program with respect to labor market and student demand. Please refer to the document "*Guidelines for demonstrating student and labor market demand*." Please also consider asking your local MassHire Board for assistance.

(NOTE: Massachusetts is in the process of re-branding its Workforce Investment Boards, which are also known variously as Regional Employment Boards, or Workforce Development Boards. The new appellation, which will begin appearing in late Summer and early Fall 2018, is MassHire Board.)

1. Submit clear evidence of student and labor market demand for the program.

See attached

required

Download "Guidelines for preparing evidence of secondary student and labor market demand" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 2: Organization (Program Advisory Committee)

[Legal Citations: M.G.L.c.74, §2 & 6; 603 CMR 4.03 and 4.04(1)(c)1]

REQUIREMENT: 2a. There must be a Program Advisory Committee for the proposed program.

2a. Submit an initial Program Advisory Committee Form for the proposed Vocational Technical Education program. [NOTE: A fully completed form with all required members must be submitted as part of the Part B application.]

See attached

required

View or download the document "Program Advisory Committee for VTE Form" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 3: Sufficient Time to Address Vocational Technical Education Frameworks

REQUIREMENT: The program should attempt to provide students with a total of 900 or more hours of program-related instruction.

3. Submit a completed Total Hours of Instruction worksheet for the proposed VTE program.

See attached

required

View or download the document "Total Hours of Instruction Worksheet" at <http://www.doe.mass.edu/cte/programs/timeline.html>.

Program Advisory Committee for Vocational Technical Education Form

A school district official must complete this form and submit it with the Application for Vocational Technical Education New Program Approval M.G.L.c.74. Massachusetts Department of Elementary and Secondary Education staff will then review for compliance with the Vocational Technical Education Regulations.

District: Worcester Public Schools		School Year: 2019-2020		Program Name: Marketing/Finance				
Facilitator: (May be school district staff) Sally Maloney								
<p>Provide the first and last name of all committee members. (NOTE: School district staff from ANY school district may not be members of the Program Advisory Committee. Do not list them below.)</p> <p>Provide the address for each member including street name & number, city/town, state, zip code, daytime or cell phone telephone number and email address.</p>		<p>Provide the company name for each business/industry representative; the organizational title for the organized labor representative; the name of the school/college/university for the postsecondary representative and the organizational title for the registered apprenticeship program representative.</p> <p>¹Organized Labor representation is not required on individual PACs if the school's General Advisory Committee includes such representation.</p> <p>²Postsecondary representation is required on all PACs. That requirement can be met with representatives of postsecondary education institutions or registered apprenticeship programs.</p> <p>³Prior to the approval of a new program, the parent/guardian and student representation requirement may be met by involving one or more parents and students not yet associated with the program. Their role is to ensure that the perspectives of parents and students are considered in the development of the program.</p>						
		COMPOSITION (check as applicable)		TYPE OF REPRESENTATION (check one box for each name listed)				
		Person with Disabilities Racial or Linguistic Minority Non-traditional by gender (if applicable)		Business/Industry Organized Labor ¹ Postsecondary Institution ² Registered Apprenticeship ² Parent/Guardian ³ Student ³				
List chairperson here Stephen Bollus, Principal 89 Shrewsbury Street Suite 200 Worcester, MA 01604 1-508-755-7107 slynch@bolluslynch.com				X				

[illegible]

Total Hours of Instruction Worksheet

Name of School:	Doherty Memorial High School
Name of Program:	Marketing, Management and Finance

The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating students. Program-related instruction includes:

- “shop” time;
- Program-related classroom time
- Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
- Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6.

	SHOP CLASS (including work-based learning during shop hours)	SHOP-RELATED CLASS	OTHER CLASS	OTHER CLASS	OTHER CLASS
NAME OF OTHER CLASS			<i>example: Strand 5: Management & Entrepreneurship taught in separate class</i>		
PROGRAM YEAR 1	135	135	0	0	0
PROGRAM YEAR 2	135	135	0	0	0
PROGRAM YEAR 3*	135	135	0	0	0
PROGRAM YEAR 4*	135	135	0	0	0
COLUMN TOTALS	540	540	0	0	0

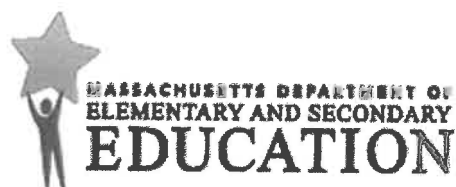
* If applicable

GRAND TOTAL	1080
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If the district believes that it has designed a program that will provide students with the requisite experience and training that does not meet this minimum, the district should contact the Department to discuss the proposed program design prior to submitting a Part A application.

E. CONSTRUCTION CRAFT LABORER

1. DESE Part A Application
2. Initial Program Advisory
Committee Form
3. Total Hours of Instruction
Worksheet



Part A-Preliminary Application Package for Vocational Technical Education New Program Approval M.G.L.c.74

Updated: August 2018



MASSACHUSETTS DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION
Office for College, Career, and Technical Education
75 Pleasant Street, Malden, MA 02148-4906
Phone 781-338-3901 TTY: N.E.T. Relay 800-439-2370
www.doe.mass.edu/cte

New 2018 Part A Prelim

Chapter 74 New Program Application PART A (Preliminary)

Disclaimer: Sections of law, regulations and guidelines are referenced in this document. The official copies of the law, regulations and guidelines as filed with the Massachusetts Office of the Secretary of State are implemented by the Massachusetts Department of Elementary and Secondary Education (DESE). The Massachusetts Department of Elementary and Secondary Education does not represent this document as a replacement for the official law, regulations and guidelines documents.

Overview

The Application for Vocational Technical Education New Program Approval is submitted by a school district that seeks approval of a new vocational technical education program pursuant to Massachusetts General Law Chapter 74 (M.G.L.c.74) (Chapter 74) and the Vocational Technical Education Regulations (603 CMR 4.00). The application consists of **Part A (Preliminary)** and **Part B (Concluding)**. An approved program is known as a Chapter 74-approved vocational technical education program. **State aid is calculated on enrollment in programs that have approval status on November 1 of any given year.** The Massachusetts Department of Elementary and Secondary Education cannot retroactively approve programs after November 1 for state aid or any other purpose.

Part B is not to be submitted unless the district has been notified in writing by the Department to proceed.

Part A

In order to ensure that school districts interested in developing new Chapter 74 programs are first establishing key foundational elements for those programs, the Department has created a three-step process.

1. Submission of an **Intent to Apply** comprises the first step. Submission of an Intent to Apply does not obligate the submission of a Part A application, but all Part A applicants must have first submitted an Intent by the published deadline.
 2. The elements found in the **Part A (Preliminary)** Application Form below comprise the second step.
 3. Applicants whose Part A applications are judged viable will be invited to submit **Part B (Concluding)** applications, the third step in the process.
-

Before Submitting Part A

Before submitting a Part A (Preliminary) application, school districts should undertake the following tasks.

1. *Create a program advisory committee (PAC).* The program advisory committee, including representatives from industry, postsecondary education, and organized labor (if applicable) will offer guidance and insight as potential applicants explore the feasibility of opening any new program. This body should play a leading role in examining labor market demand and student demand data in the context of other local considerations. The strongest new program

applications are those where industry experts and other partners are involved from the earliest stages of new program development. The Part A application requires that you provide evidence of an initial PAC which may lack some required members. An updated PAC listing with all required members must be submitted in Part B.

2. *Arrange a meeting* between your Program Advisory Committee and a representative from the Office for College, Career, and Technical Education. OCCTE staff can assist business/industry representatives and school leaders in understanding how to determine if the new program under consideration is feasible.
3. *Measure student demand for the program.* It is the obligation of applicant districts to make a compelling case that students are interested in enrolling in proposed programs. If the school or district currently offers the program as a non-Chapter 74 Perkins-funded program and reports students in the Commonwealth's Student Information Management System (SIMS), enrollment information for previous years may be used as historical evidence of student demand. Historical enrollment data from courses that will become part of the proposed program and surveys of middle school and/or ninth grade students are legitimate methods of illustrating student demand. Applicant districts are free to present any and all evidence to demonstrate student demand. Additionally, if the proposed program duplicates one currently offered at the regional vocational technical school of which the applicant district is a member and/or the applicant's local county agricultural school, the applicant district must provide evidence that either/both of those school districts cannot accommodate student demand.
4. *Ensure that the program you are considering is of sufficient length.* The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating student. Consequently, please make every effort to ensure that the entire program you are proposing will provide students with no less than 900 hours of program-related instruction. Program-related instruction includes:
 - "Shop" time;
 - Program-related classroom time
 - Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
 - Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6
5. *Address any outstanding items.* A new program application can be delayed by outstanding Coordinated Program Review corrective action plans or progress reports related to admissions or safety, or outstanding civil rights Methods of Administration (MOA) voluntary action plans.

Timeline for Chapter 74 Applications

Notice of Intent to Apply: A Notice of Intent to Apply may be submitted at any time on or prior to **5:00 PM** on the last Friday in October of any calendar year. For this application cycle, that date is **October 26, 2018**. Notice is accomplished by completing a brief survey. Notice of Intent does not obligate submission of a Part A (Preliminary) application, but no Part A applications will be accepted if a Notice of Intent to Apply has not been submitted by the aforementioned deadline.

Part A (Preliminary) applications are accepted no later than **5:00 PM** on the second Friday of December following. For this application cycle, that date is **December 14, 2018**.

Part B (Concluding) applications are only accepted upon invitation by DESE after Department review of the Part A application. Part B applications are due no later than **5:00 PM** on the first Friday of April following. For this application cycle, that date is **April 5, 2019**.

School District and Program Information

School District Name:
Worcester Public Schools

School Name:
Doherty Memorial High School

LEA #
0348

What is the VTE Framework title for the proposed program?
Construction Craft Laborer

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Cosmetology programs must **first** be approved by the Massachusetts Board of Registration of Cosmetology and Barbering. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of Registry in Dentistry oversees the licensing of dental health care professionals in the state of Massachusetts, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: If the Early Education and Care program under consideration will include an onsite early education facility, **that facility must be licensed** by the Massachusetts Department of Early Education and Care (DEEC). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Massachusetts Board of State Examiners of Electricians examines and licenses electrician candidates, including those graduating from Chapter 74 programs. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Health Assisting programs must **first** be approved by the Massachusetts Department of Public Health (DPH). Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: The Board of State Examiners of Plumbers and Gas Fitters regulates the practice of plumbing occupations in the Commonwealth of Massachusetts. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

PLEASE NOTE: As a condition of approval, Chapter 74 Vocational Technical Education Practical Nursing programs must **first** be approved by the Massachusetts Board of Registration in Nursing. Please contact Marnie Jain in the Office for College, Career, and Technical Education for more information.

What is the program name (if different from VTE Framework Title)?
Construction Craft Laborer

Will this program be offered as a SECONDARY program or a POSTSECONDARY program?

☒ Secondary

Postsecondary

Will this program, if approved, offer combined instruction with any other Chapter 74 programs already in operation?

☒ Yes

No

Who is the school district contact person for this application?

Sally Maloney

What is the title of the school district contact person for this application?

Principal

What is the telephone number of the school district contact person for this application?

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

What is the email address of the school district contact person for this application?

maloneys@worcesterschools.net

Name of school district superintendent

Maureen Binienda

Telephone number of school district superintendent

508-799-3117

xxx-xxx-xxxx (include extension # if applicable)

Email address of school district superintendent

biniendam@worcesterschools.net

Name of school principal

Sally Maloney

Telephone number of school principal

508-799-3270

xxx-xxx-xxxx (include extension # if applicable)

Email address of school principal

maloneys@worcesterschools.net

Name of vocational technical education director (if applicable)

Patricia Suomala

Telephone number of vocational technical education director (if applicable)

508-799-1140

xxx-xxx-xxxx (include extension # if applicable)

Email address of vocational technical education director (if applicable)

suomalap@worcesterschools.net

List any colleges/universities or apprenticeship training programs affiliated with the program

Worcester Polytechnic Institute

Quinsigamond Community College

Fitchburg State University

Mass Construction Career Development (MassCCD) – a registered pre-apprentice program

Construction Craft Laborers registered apprenticeship program

Millwrights registered apprenticeship program

List any areas of specialization in the proposed program

Construction & Building Site – commercial/residential

Infrastructure

Deconstruction

Heavy & Highways

Pipeline, Utilities, Tunneling

Masonry, Tile Setting

Environmental – remediation/abatement, confined spaces, erosion control

Statement of Assurances and Signature Block

Please upload a scanned Statement of Assurances with Superintendent's signature.

See attached

required

Download the Statement of Assurances form at <http://www.doe.mass.edu/cte/programs/timeline.html>

PART A DOCUMENTATION

CRITERION 1: Student and Labor Market Demand

[Legal Citation: M.G.L.c. 74, §1,2 & 4; 603 CMR 4.03(1)(c)(1) and 4.04(1)]

REQUIREMENT: 1a. In order to receive vocational technical education program approval, the Superintendent shall submit an application to the Commissioner that provides clear evidence of secondary student and labor market demand for the program and demonstrates compliance with the approval criteria.

PLEASE NOTE: In cases where the proposed program aligns with regional industry-sector and/or occupational priorities, the applicant does not need to provide additional evidence of labor market demand but is still required to provide evidence of sufficient student demand. For more information, see the section above, **Before Submitting Part A**, and the section on student demand in the document "*Guidelines for demonstrating student and labor market demand.*"

If the proposed program *does not* align with regional priorities, it is the obligation of the applicant to make a compelling case for the viability of the program with respect to labor market and student demand. Please refer to the document "*Guidelines for demonstrating student and labor market demand*." Please also consider asking your local MassHire Board for assistance.

(**NOTE:** Massachusetts is in the process of re-branding its Workforce Investment Boards, which are also known variously as Regional Employment Boards, or Workforce Development Boards. The new appellation, which will begin appearing in late Summer and early Fall 2018, is MassHire Board.)

1. Submit clear evidence of student and labor market demand for the program.

See attached

required

Download "Guidelines for preparing evidence of secondary student and labor market demand" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 2: Organization (Program Advisory Committee)

[Legal Citations: M.G.L.c.74, §2 & 6; 603 CMR 4.03 and 4.04(1)(c)1]

REQUIREMENT: 2a. There must be a Program Advisory Committee for the proposed program.

2a. Submit an initial Program Advisory Committee Form for the proposed Vocational Technical Education program. [NOTE: A fully completed form with all required members must be submitted as part of the Part B application.]

See attached

required

View or download the document "Program Advisory Committee for VTE Form" at <http://www.doe.mass.edu/cte/programs/timeline.html>

CRITERION 3: Sufficient Time to Address Vocational Technical Education Frameworks

REQUIREMENT: The program should attempt to provide students with a total of 900 or more hours of program-related instruction.

3. Submit a completed Total Hours of Instruction worksheet for the proposed VTE program.

See attached

required

View or download the document "Total Hours of Instruction Worksheet" at <http://www.doe.mass.edu/cte/programs/timeline.html>.

Program Advisory Committee for Vocational Technical Education Form

A school district official must complete this form and submit it with the Application for Vocational Technical Education New Program Approval M.G.L.c.74. Massachusetts Department of Elementary and Secondary Education staff will then review for compliance with the Vocational Technical Education Regulations.

District: Worcester Public Schools		School Year: 2019-2020		Program Name: Construction Craft Laborer						
Facilitator: (May be school district staff) Sally Maloney		Date of Completion:								
<p>Provide the first and last name of all committee members. (NOTE: School district staff from ANY school district may not be members of the Program Advisory Committee. Do not list them below.)</p> <p>Provide the address for each member including street name & number, city/town, state, zip code, daytime or cell phone telephone number and email address.</p>	<p>Provide the company name for each business/industry representative; the organizational title for the organized labor representative; the name of the school/college/university for the postsecondary representative and the organizational title for the registered apprenticeship program representative.</p> <p>¹Organized Labor representation is not required on individual PACs if the school's General Advisory Committee includes such representation.</p> <p>²Postsecondary representation is required on all PACs. That requirement can be met with representatives of postsecondary education institutions or registered apprenticeship programs.</p> <p>³Prior to the approval of a new program, the parent/guardian and student representation requirement may be met by involving one or more parents and students not yet associated with the program. Their role is to ensure that the perspectives of parents and students are considered in the development of the program.</p>	COMPOSITION (check as applicable)		TYPE OF REPRESENTATION (check one box for each name listed)						
		Person with Disabilities	Racial or Linguistic Minority	Non-traditional by gender (if applicable)	Business/Industry	Organized Labor ¹	Postsecondary Institution ²	Registered Apprenticeship ²	Parent/Guardian ³	Student ³
<p>List chairperson here</p> <p>Jeffery Cathcart Dir. Pre-Apprentice & Voc Training NE Laborers Training Fund jcici@cox.net</p>		<p>NE Laborers Training Fund</p>								

[illegible]

Total Hours of Instruction Worksheet

ANNEX A
GB #9-234
Page 58

Name of School:	Doherty Memorial High School
Name of Program:	Construction Craft Laborer

The Department anticipates that a program designed to provide students with the requisite experience and training to successfully complete the requirements of a Chapter 74 program as outlined in the curriculum frameworks would include at least 900 hours of program-related instruction for each participating students. Program-related instruction includes:

- “shop” time;
- Program-related classroom time
- Time devoted to work-based learning (e.g., cooperative education, internships, clinical rounds)
- Any other classes or portions of classes that address VTE Frameworks Strands 4, 5, or 6.

	SHOP CLASS (including work-based learning during shop hours)	SHOP-RELATED CLASS	OTHER CLASS	OTHER CLASS	OTHER CLASS
NAME OF OTHER CLASS			<i>example: Strand 5: Management & Entrepreneurship taught in separate class</i>		
PROGRAM YEAR 1	135	135	0	0	0
PROGRAM YEAR 2	135	135	0	0	0
PROGRAM YEAR 3*	135	135	0	0	0
PROGRAM YEAR 4*	135	135	0	0	0
COLUMN TOTALS	540	540	0	0	0

* If applicable

GRAND TOTAL	1080
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If the district believes that it has designed a program that will provide students with the requisite experience and training that does not meet this minimum, the district should contact the Department to discuss the proposed program design prior to submitting a Part A application.

F. STATEMENT OF ASSURANCES

1. Statement of Assurances &
Superintendent Signature

Statement of Assurances and Signature Block

(for applicant school district)

This block applies to a school district that seeks approval of the proposed vocational technical education program under M.G.L.c.74 and serves as an assurance by the Superintendent of the applicant district that the information in the application is factual and that the district will adhere to the applicable state and federal laws and regulations.

I attest that the information presented in this application is factual and that the school district will implement the approved program in accordance with applicable state and federal laws, regulations, and guidelines, including but not limited to the following:

- Massachusetts General Law Chapter 74
- Massachusetts Vocational Technical Education Regulations 603 CMR 4.00
- Federal Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap in Vocational Education Programs (34 CFR, Part 100, Appendix B)

Signature of Superintendent

Date

G. APPENDIX

1. Letter of Support from MassHire



CENTRAL REGION WORKFORCE BOARD

340 Main Street, Suite 400
Worcester, MA 01608
508.799.1590

July 9, 2019

Maureen F. Binienda, Superintendent
Worcester Public Schools
20 Irving Street
Worcester, MA 01609

To Ms. Binienda,

The MassHire Central Region Workforce Board (MCRWB) is pleased to offer this letter of support for the Worcester Public Schools' application for new Chapter 74 career vocational technical education program applications for the new Doherty High School in Programming and Web Development, Construction Craft Laborers, and Marketing/Finance, as well as expansion of its Engineering Technology program.

As the region's public/private partnership serving needs of both employers and employees the MassHire Central Region Workforce Board (MCRWB) collaboratively develops and implements strategies for job readiness and skills advancement, leveraging community resources that promote economic wellness within the region's 38 cities and towns. Our Board is made up of individuals from the private sector, labor, education, community-based organizations and a number of state agencies. As you are aware, the MCRWB recently completed a regional workforce blueprint with our partners throughout the Central and North Central MA Workforce Development Areas (WDA) to identify priority industries and occupations. The result of this extensive review of labor market information and stakeholder engagement is occupations and occupational groups in which the region is facing the most significant employee shortages.

We appreciate that your new Chapter 74 program development included consultation with the MCRWB regarding our regional workforce blueprint and the need for the suggested new programs. As we have discussed we agree that these programs are in full alignment with our blueprint's critical occupations and will significantly help us meet our regional workforce needs.

Furthermore, the MCRWB will offer ongoing support as these new programs are developed, including inclusion of these programs into our regional School to Career Connecting Activities efforts, program curricula guidance, and employer partner outreach.

We look forward to working with you on the development and implementation of these new programs. Please let us know if there is anything further we can do to be of assistance.

Sincerely,

Jeffrey Turgeon

Executive Director
MassHire Central Region Workforce Board