

**BOARD OF HIGHER EDUCATION
REQUEST FOR BOARD ACTION**

BHE 23-52

BOARD DATE: June 20, 2023

**APPROVAL OF LETTER OF INTENT OF MOUNT WACHUSETT COMMUNITY
COLLEGE TO AWARD THE ASSOCIATE IN SCIENCE IN PARAMEDICINE AND
AUTHORIZATION FOR FAST TRACK REVIEW**

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of **Mount Wachusett Community College** to award the **Associate in Science in Paramedicine** and has determined that the proposal aligns with BHE criteria. Accordingly, the BHE authorizes the Commissioner to review the program and to make a final determination on degree granting authority pursuant to the Fast-Track review protocol.

VOTED: Motion approved and advanced to the full BHE by the Executive Committee on 6/12/2023; and adopted by the BHE on 6/20/2023.

Authority: Massachusetts General Laws Chapter 15A, Section 9(b); AAC 18-40

Contact: Winifred M. Hagan, Ed.D., Senior Associate Commissioner for Strategic Planning and Public Program Approval

BOARD OF HIGHER EDUCATION
June 20, 2023
Mount Wachusett Community College
Letter of Intent
Associate in Science in Paramedicine

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

The purpose of Mount Wachusett Community College's (MWCC) proposed Associate in Science in Paramedicine (AS/ParaMed) program is to graduate students with advanced paramedic and leadership skills who will be eligible for professional advancement. MWCC reports that it developed the proposed AS/Paramed program in response to a growing need for more nationally registered paramedics. MWCC's Paramedic Technology Certificate Program was approved in 2017. Changing responsibilities for paramedics and the evolving skill set needed for the profession led MWCC to design a program that is inclusive of the current certificate, aligns with the national certification requirements, and incorporates curricular content associated with leadership and advanced clinical skills. MWCC intends that students will continue to be prepared to meet the national registry exam requirements with the certificate program during the first year of the proposed program. It is further intended that during the second year, students will complete the general education requirements as well as courses that specifically include advanced techniques and paramedic leadership skills. Degree completion is expected to qualify graduates for salary upgrades and increase eligibility for advancement opportunities in paramedicine.

The proposed Associate in Science in Paramedicine was approved by the Mount Wachusett Community College Board of Trustees on March 30, 2023. The LOI was circulated on April 12, 2023. No comments were received.

A. ALIGNMENT WITH MASSACHUSETTS GOALS FOR HIGHER EDUCATION

Address Gaps in Opportunity and Achievement in Alignment with Campus-Wide Goals

In 2018 MWCC was awarded a Health Resources and Services Administration¹ (HRSA) grant to increase the number of allied health professionals in the region by creating educational pathways at the high school and college level. The Health Career Opportunity Program (HCOP) was developed as a career exploration course and over 300 students have participated in it since its inception in the fall of 2020. This participation has resulted in increasing numbers in MWCC's allied health programs including the existing paramedic program. MWVV reports that current enrollment is 25% greater than the past two cohorts. Also, MWCC is a designated military friendly campus, and its paramedic program is favored program by veterans. Many of the students enrolled within the paramedic program are veterans and facilitating completion for these students has been a priority. MWCC created a pathway from military medic to paramedic and it is expected that the opportunity to extend this further with an opportunity to earn an AS/ParaMed will directly support the advancement of MWCC students who are veterans. MWCC further expects that the proposed program will help to increase the number of persons of color who are completing the MWCC paramedic program should better align with the number of active-duty military. According to the Department of Defense demographic profile, racial and ethnic minority groups made up to 48% of the defense department active-duty military in 2020². MWCC holds that the proposed AS/ParaMed will complement the existing paramedic certificate and provide greater opportunity for advancement of individuals with a military background which will strengthen the quality of graduates and diversify the cohort at MWCC.

¹ *HRSA is an agency of the US Department of Health and Human Services... HRSA programs support health infrastructure, including training of health professionals... its mission is to improve health outcomes and achieve health equity through access to quality services, a skilled health workforce, and innovative, high-value programs. Retrieved 5/8/2023 <https://www.hrsa.gov/about>*

² *In this group, Hispanic or Latinos represent 17.2% of the entire active-duty profile with 31.1% representing other racial minorities. (2020 Demographic Profile of the Military Community, Retrieved 1/18/23 <https://www.2020-demographics-report.pdf>).*

Program or Department Supports to Ensure Student Retention and Completion

All students are supported for persistence and completion through the MWCC Thrive Center, the MWCC Veterans Success Center, Academic Success Center and student services. MWCC plans that the proposed program aligning with the paramedic certificate program provides multiple student supports. Students will have familiarity with the instructors and a built-in open lab/tutoring time for widely available opportunities to practice skills or review content with practitioners utilizing the equipment and space within the labs. All lab equipment was recently purchased and monitored to be state of the art and equal to what is available in contemporary practice. Advising, career and transfer services are also planned to support students and if eligible, students are provided with support from MWCC Trio RX program and the previously mentioned HRSA funded HCOP program. Assessment for prior learning will be accessible to students, who may advance to degree completion in a timely manner. This in turn would provide advancement in the civil service ranking resulting in eligibility for a firefighter position and promotion within fire departments- which are reported to come with an increase in compensation for each degree completed. MWCC expects that the proposed program will fill a gap for career advancement for paramedics who wish to obtain leadership positions or higher compensation levels attainable through the completion of a degree.

Alliances and Partnerships with PK-12, Other IHE's, Community Employers

As a Committee on Accreditation for the EMS Professions (CoAEMSP³) accredited program, the existing paramedic certificate and proposed degree programs are required

³ Along with certification and licensure, accreditation is a tool intended to help assure a well-prepared and qualified workforce providing health care services. The Commission on Accreditation of Allied Health Education Programs (CAAHEP) is a programmatic postsecondary accrediting agency recognized by the Council for Higher Education Accreditation (CHEA); it carries out its accrediting activities with EMS programs in cooperation with the CoAEMSP. Retrieved 5/8/2023 <https://coaemsp.org>

to have an active advisory board which is represented by many stakeholders including faculty, employers, medical directors, at-large community members and students. The feedback obtained from the advisory board is directly related to decisions made regarding the program goals, outcomes curriculum and strategic planning for the program.

Once the proposed program LOI is approved by BHE, MWCC expects to develop direct partnership and transfer agreements for graduates to move into a bachelor's degree program in Emergency Services or Fire Science. Additionally, the paramedic degree program will serve as strong foundational coursework for nursing, physician assistant or other health related disciplines. The proposed curriculum includes all elements of the over 1400 hours required by the United States Department of Transportation (USDOT), Commission on Accreditation for Emergency Medical Service Programs (CoAEMSP) and Massachusetts Office of Emergency Services (MAOEMS) to fulfill the requirements to sit for the certification through the National Registry of Emergency Medical Technicians (NREMT) at the paramedic level. MWCC has converted the learning that results from an existing 1400 clock hours into 48 credits for the existing approved paramedic certificate. Within this proposed degree, that curriculum is enhanced by an additional 15 credits of general education courses, which are required to satisfy the MWCC career core. It is expected that graduates of the proposed degree program will be prepared for experiences as leaders in their field and/or for continuation to the bachelor's degree. The curriculum includes 8 additional credits, which are designed to increase the leadership and clinical skill levels of graduates, qualifying graduates for employability beyond entry level requirements with increased compensation. MWCC plans that while this will result in a 71-credit associate degree, transfer articulations are planned in order to provide pathways to baccalaureate completion at Massachusetts Maritime Academy and Anna Maria College in Paxton MA.

Through its partnership with area high schools, students have an opportunity to become EMT basic certified. This status, coupled with a year of experience or 75 patient

contacts is required as a minimum for admission to the paramedic certificate or degree program. This is a long-standing national requirement for NREMT within EMS education and training because it ensures paramedics are prepared physically, emotionally, and clinically for the demands of the paramedic role. MAOEMS follows the NREMT requirements including this requirement to be a Basic EMT prior to paramedic education. Additionally, the Basic EMT training is not replicated with the paramedic curriculum and individuals who were not previously certified as Basic EMTs may have significant knowledge gaps. Since the LOI was circulated and under review, MWCC paramedic program staff are reviewing this requirement with its advisory board. It is planned that certified EMT-Basic candidates would be able to gain experience through part time employment while participating in paramedic education. Once the proposed program is fully approved MWCC expects to develop an enrollment funnel from EMT Basic to EMT Paramedic Technology Certificate to Associate of Science in Paramedicine.

Through its partnership with the Division of Workforce Development and Lifelong Learning, students are encouraged to become certified EMT Basic and then advance to Paramedic after fulfilling the minimum admission requirement of 1 year of experience or 75 patient contacts. Additionally, this partnership provides continuing education credits to be offered through the division for certified paramedics. MWCC finds that this reinforces the EMS community employer partnerships within the region. Promotion and compensation incentives for regional employers of paramedics require degree attainment explicitly in emergency medicine, paramedicine or directly related discipline of study.

Relationship to MassHire Regional Blueprints

In referencing the Mass Hire Regional Blueprint for the Central MA region MWCC finds that there has been a shift over the past several decades from a largely manufacturing focused economy to one that is more balanced between industry sections including healthcare, education, professional services, and retail. This shift has resulted in the

loss of family-supporting wages for individuals without formal education. Health care workers in all levels of clinical services continue to show increasing needs. According to the Regional Blueprint, the top occupation group facing the most significant employee shortage in the region is the Health Occupations group. MWCC further finds that according to the Journal of Emergency Medical Service (JEMS), there is a well-documented paramedic shortage of emergency medical personnel both locally and nationally⁴. MWCC expects the proposed program will address the industry demand for higher academic degrees specific to paramedicine, EMS or fire science. Fire and emergency service contract language requires that the degree be specific in order for the individual to benefit from the salary incentive.

Duplication

The Commonwealth of Massachusetts Office of Emergency Medical Services (MA OEMS) oversees all accredited EMT training institutions. MAOEMS divides the state into 5 regions with Region II being Central Mass. Within Region II, there are (4) facilities that are recognized accredited training institutions (ATIs) that provide preparation for the NREMT- paramedic level exam. Two of these institutions are located within private training facilities. The other two programs, like MWCC, are housed within accredited institutions of higher education. One of these programs is at Anna Maria College in Paxton. Anna Maria does host a Certificate Program and a bachelor's degree in paramedic science. This program is being considered as a transfer option for student completing their associate degree and seeking a bachelor's degree. Quinsigamond Community College (QCC) offers both a certificate and associate degree providing students with the opportunity to choose which path they wish to follow. MWCC has embedded various certifications within the curriculum including NAEMT Prehospital Trauma Life Support (PHTLS), NREMT Advanced

⁴. (Sellberg MD, Martin, Published 9.20.22, "Combatting the EMS Shortage with Data" Retrieved from URL <https://www.jems.com/administration-and-leadership/combating-the-ems-shortage-with-data/>, accessed 1.9.23).

Medical Life Support (AMLS), AHA Pediatric Advanced Life Support (PALS), Neonatal Resuscitation Program (NRP), NREMT Geriatric EMS (GEMS) and NREMT Tactical Emergency Casualty Care (TECC) program.

Innovative Approaches to Teaching and Learning

The Concepts in Advanced Paramedicine course is an innovation that integrates instruction with the projected changes in the delivery of Paramedicine in the field. It is expected that this will enable staff to stay ahead of requirements on the ‘horizon’ and produce graduates who have a competitive advantage for employment.

An example provided in MWCC’s LOI is how ultrasound would be used in the field. Beginning in June 2022 new pre-hospital statewide treatment protocols added the use of ultrasound by the paramedic under the approval of the affiliated hospital’s medical director, and proof of initial training and hands on procedure competency. MWCC plans that the proposed program curriculum will be adaptive to changes and improvements for the field in real time, thereby preparing graduates who are immediately able to utilize new diagnostic tools. This advanced course is also expected to include newly approved protocols and equipment including a peripherally inserted central catheter (PICC), an automated transport ventilator (ATV), and an emergency surgical procedure (Cricothyrotomy). This course is also planned to cover Mobile Integrated Health Care and Community EMS, promoted by the Massachusetts Department of Public Health, and designed to deliver care and services to patients outside of the hospital with coordination of healthcare facilities and providers. This development of community paramedicine programs will assist in improving access to healthcare services for everyone. MWCC plans that all levels of simulation including high fidelity, virtual reality, and access to a Laerdal 3G Sim Man⁵ will be included in teaching and learning experiences.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

⁵ *SimMan 3G is a durable patient simulator created for high-quality simulation training in a multitude of different medical procedures and patient cases.... Retrieved 5/9/23 <https://laerdal.com/us/products/simulation-training>*

LOI Program Goals and Objectives (Form B)

MWCC reports that the proposed AS/ParaMed has been prioritized in order to create a program designed for individuals who may not see themselves as college students. It is planned to serve as an onramp to students who initially gained access to a career in emergency medical services through noncredit offerings. This is planned in alignment with the MWCC mission to transform students by providing access to affordable, high quality, innovative, civic-minded, '... and relevant education and training opportunities...' MWCC specifically cites strategic initiatives within its 2023 -2027 strategic plan to create pathways for bridges and stackable credentials in response to the evolving needs of students and the workforce. MWCC expects that students who obtain their EMT-Basic certification and 1 year of experience as an EMT will be eligible to work toward their associate degree in Paramedicine with the option to continue to a bachelor's degree and beyond. With the understanding that students sometimes stop out of a degree program, MWCC has designed the proposed program such that graduates would be eligible to pause from the program, if need be, begin their career as a Paramedic at the completion of the certificate program and return to the AS pathway when personal circumstances allow. This design is intended to create a stackable series of credentials that are flexible for adult students to pause and continue on the pathway toward becoming advanced practitioners and leaders. Other MWCC strategic initiatives made manifest by the proposed program include its relationship to the regional workforce in preparing a pipeline of graduates to fill a significant shortage.

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C)

MWCC reports that its existing paramedic technology certificate has capped its annual enrollments at 12. This is based on current available clinical rotations. With the addition of the proposed program, MWCC could add additional enrollments of 12 annually from previously certified paramedics who have completed their certification at MWCC or at

another training institution. These additional 12 continuing full-time students may be able to earn credit based on prior learning assessment.

*Resources and Financial Statement of Estimated Net Impact on Institution
Budget (Form D)*

No significant increases are planned in the budget for year 1. Increased enrollments are expected to require additional part-time staff and adjunct professors. In Year 3, based on enrollment trends, a second full-time faculty member could be considered.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Associate in Science in Paramedicine** submitted by **Mount Wachusett Community College**. Staff validate that the **LOI** includes all data required by the Massachusetts Board of Higher Education. Staff recommendation is for BHE authorization for the Commissioner to review the program pursuant to the Fast-Track review protocol.

Form A: Curriculum Outline

MWCC AS Paramedicine

<i>Required (Core) Courses in the Major (Total # courses required = 13)</i>		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
HCC 201	Paramedicine I	3
HCC 202	Paramedicine II	4
HCC 203	Paramedicine III	3
HCC 211	Paramedic Pharmacology	3
HCC 215	Special Pop/EMS operations	1
HCC 212	Cardiology	4
HCC 213	Medical Emergencies	3
HCC 217	Trauma	3
HCC 218	Paramedicine Clinical	8
HCC 220	Summative Paramedicine Review	4
HCC 221	Capstone Paramedic Field Internship	5
HCC 222	EMS Leadership	3
HCC 223	Concepts in Advanced Paramedicine	5
	<i>Sub Total Required Credits</i>	49

<i>Distribution of General Education Requirements</i>		<i># of Gen Ed Credits</i>
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages ENG 101 (3), ENG 102 (3) and Humanities Elective (3)		9
Mathematics and the Natural and Physical Sciences Mat 142/143 (3) and BIO 152 (4)		7
Social Sciences Social Science elective (3) and Liberal Arts and Science Elective (3)		6
<i>Sub Total General Education Credits</i>		22
<i>Curriculum Summary</i>		
Total number of courses required for the degree	20 (13 + 7 Gen Ed)	
Total credit hours required for degree	71	

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
Produce graduates who have advanced clinical skills	All graduates will demonstrate competence in advance skills for completion	Students will be required to complete HCC 223. This 6-credit course will be utilized to provide instruction on skills that will be anticipated and approved for paramedics beyond entry level.	Annually with each successful cohort (December 2024)
Produce graduates who have advanced leadership skills	All graduates will demonstrate competence in leadership skills.	Successful completion of NAEMT Principles of Ethics and Personal Leadership (PEPL) course which will be embedded within the required capstone course.	Annual with each successful cohort. (December 2024)
Provide a comprehensive curriculum that will transfer to a 4-year program	Paramedic degree program will provide all requires for transfer to a 4-year institution.	MWCC will develop strategic articulations so that student can seamlessly move into 4-year program at local colleges.	Complete and sign (1) transfer agreements within the first year (December 2024)
90% of graduates will be fully certified as paramedics by NREMT and MA OEMS by 6 months after completion	Through graduate survey, MWCC will demonstration at least 90% certification of graduates within 6 months.	Successful completion of program coursework which enables graduate to sit for certification through didactic and psychomotor testing.	Annually with each successful cohort (beginning May 2025)
90% of all graduates will be employed by 6 months after receiving certification.	Through graduate survey, MWCC will demonstrate 90% employment of graduates at 6 months post certification.	Successful completion of certification enables employment.	Annual with graduate survey data. (beginning May 2025)

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	12	12	12	12	12
Continuing Full-Time**	0	12	12	12	12
New Part-Time	0				
Continuing Part-Time	0				
Totals	12	24	24	24	24

**Includes registered paramedics who earn prior learning assessment credits related to registration as an NREMT-paramedic level.

Form D: LOI Budget

<i>One Time/ Start Up Costs</i>		Annual Enrollment					
		Year 1	Year 2	Year 3	Year 4	Year 5	
	Cost Categories						
	Full Time Faculty (Salary & Fringe)	\$82,386.00	\$85,681	\$178,217 (evaluate adding 2 nd faculty based on enrollment trends)	\$185,347	\$2192,760	
	Part Time/Adjunct Faculty (Salary & Fringe)	\$43,200.00 (existing coordinator/adjuncts /lab helpers	\$46,656.	\$50388.	\$54,420	\$58,773	
	Staff						
	General Administrative Costs	\$14700.00 (Medical Director, accreditation, travel	\$14700.00	\$15700.	\$15700.00	\$16700.00	
	Instructional Materials, Library Acquisitions						
	Facilities/Space/Equipment	\$73,168.00	\$73,168.	\$73,168.	\$85,000 (increase due to new Laerdal leasing agreement)	\$85,000	
	Field & Clinical Resources	\$2000.00 (Bay State Clinical costs)	\$2000.00	\$2000.00	\$2000.00	\$2000.00	
	Marketing						

	Other (Specify)					
<i>One Time/Start- Up Support</i>			<i>Annual Income</i>			
	<i>Revenue Sources</i>	Year 1	Year 2	Year 3	Year 4	Year 5
	Grants	0				
	Tuition	\$183,168.00	\$366,336.00	\$366,336.00	\$366,336.00	\$366,336.00
	Fees	\$52,800.00	\$105,600.00	\$105,600.00	\$105,600.00	\$105,600.00
	Departmental					
	Reallocated Funds					
	Other (specify)					
	TOTALS	\$235,968.00	\$471,936.00	\$471,936.00	\$471,936.00	\$471,936.00