

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

BHE BHE 24-20

BOARD DATE: December 12, 2023

**APPROVAL OF LETTER OF INTENT OF MIDDLESEX COMMUNITY COLLEGE TO AWARD
THE PRACTICAL NURSING CERTIFICATE FOR AUTHORIZATION FOR FAST TRACK
REVIEW**

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of **Middlesex Community College** to award the **Practical Nursing Certificate** 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 12/4/2023; and adopted by the BHE on 12/12/2023.

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
December 2023
Middlesex Community College
Letter of Intent
Practical Nursing Certificate**

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

The purpose of the Middlesex Community College's (MxCC) proposed 41-credit Practical Nursing Program (PNP) Certificate is to prepare practical nurse graduates for passing the National Council Licensure Examination for Practical Nurses (NCLEX-PN) with options for entry-level positions in a variety of health care settings in surrounding communities, including identified workforce partners, with options to pursue further education in nursing. Options include the MxCC's AS in Registered Nurse Program. Graduates are strongly encouraged to continue a pathway to a bachelor's degree in nursing through an MxCC articulation partner. MxCC is committed to developing seamless pathways for enrolled students from certified nursing assistance (CNA) to practical nurse and through registered professional nurse programs.

The proposed Practical Nursing Certificate was approved by the Middlesex Community College Board of Trustees on June 13, 2023. The LOI was circulated on September 19, 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

The mission and strategic campus goals of MxCC, created to strongly align with BHE priorities, was developed through an inclusive and collaborative appreciative inquiry approach, which guides all educational programs and services: *MxCC provides access to affordable education for a diverse community from all ethnic backgrounds and identities, prepares individuals for success and lifelong learning; promotes academic excellence, provides workforce development opportunities, and empowers all learners to become productive and socially responsible members of local and global communities.*

The proposed MxCC PNP is an example of the institutional commitment of accessibility and affordability for a diverse community that includes all ethnic backgrounds and identities and prepares individuals for success and lifelong learning. The proposed PNP is situated in the Lowell area a notoriously, richly diverse of hardworking immigrants and refugees. MxCC history of bringing education and workforce opportunities to newcomers and underrepresented populations has inspired the program design. In addition, statistics show the health care sector in the region has seen growth in employment among Black or African American, Asian, and Hispanic or Latino populations at faster rates than for the White population. MxCC is a federally designated Asian American, Native American and Pacific Islander serving institution (AANAPISI). MxCC's commitment to helping area residents access education and employment and increase access is reflected in the proposed program and reflected in its' leadership among community colleges in Dual Enrollment, Early College, and membership in the national Achieving the Dream network¹ . The increasing demand for healthcare workers to reflect the communities they serve positions MxCC to help fulfill this need in Lowell with an almost 50% of its population, people of color (POC). MxCC reports that many of its students are low-income, from groups under-represented in higher education, or are the first in their families to attend college. The students who apply to the MxCC nursing program are expected to be diverse. In working to collaborate with local high schools in the area, MxCC's projected number of students who will be able to access nursing sooner in their academic journey will grow. The proposed pathway program would recruit students and trainees from the neighborhoods where the industry partners operate and from where most of their patients originate to better match languages, cultural needs and understanding.

In addition to this MxCC expects that without expanding the nursing pipeline, many potential students will wait for seats in the RN programs By offering the proposed PNP students will begin to gain knowledge, skills and credits while waiting to enroll in the RN program The addition of the PNP track is expected to train participants as frontline healthcare professionals to advance along a career pathway and attain the

¹ . Achieving the Dream members are devoted to racial and ethnic justice which complements MCC's recent work with the MA DHE Higher Education Innovation Fund promoting diversity, equity and inclusion.

postsecondary credentials needed for middle- to high-skilled nursing occupations, and thereby address the growing shortage of nurses in the MA workforce and beyond.

Program or Department Supports to Ensure Student Retention and Completion

MxCC emphasizes that its Nursing Department mission and values are in alignment and include providing high quality, comprehensive, evidence-based nursing education to a diverse community of students. MxCC prepares nursing students to provide compassionate, safe, effective, and exemplary care directed toward health promotion and management of the complex health needs of patients, families, and communities. The proposed program is designed to provide a learning environment that is sensitive to a culturally and ethnically diverse student body, faculty, and staff; uses innovative, evidence-based teaching and learning strategies that enhances student learning and success to best meet the workforce needs of the community; empower a diverse community of learners to meet individual goals and to be active, socially responsible participants in society; create an environment within which students, faculty, and staff interact with respect, value learning and inquiry, and work collaboratively; cooperate and collaborate with clinical agencies and communities to enhance student learning and expand professional roles; adapt to new technologies; function in a changing policy environment; lead with professionals from other sectors and professions; support and encourage faculty to promote the scholarly progression of the nursing discipline through teaching, service, research, and professional practice.

MxCC expects to provide academic support for students in the PNP program through resources that include library services, audio/visual resources, laboratory and simulation spaces, supplies, equipment, support staff and student support services in addition to classroom learning. Further, MxCC's contract with William Sloan Associates is expected to expand and relocate nursing facilities to provide increased learning spaces, a high-fidelity simulation center, study and tutoring spaces, and faculty, advisor, and support services centrally located to classrooms and learning spaces. The existing Nursing program currently occupies approximately 3400 net square feet of space, which accommodates 14 nursing lab beds and a Simulation Lab of 750 SF. The proposed space requirements for the Nursing Program include three Nursing Learning Center

Labs for PNP, ADN, and Open Lab use, with 6 beds in each for a total of 18 beds and approximately 3200 SF of learning space. The Simulation Lab is planned to consist of eight stations separated by 8' high partitions to allow independent use, along with a nurses' station and control/debriefing space, and requires approximately 2600 SF. The total square footage of available practice learning space is approximately 5800 SF. In addition to that, all the nursing lecture classrooms, faculty offices, student support services, and health compliance officer will be in the same building, within 4 floors. MxCC currently has a large student support network that includes peer and professional tutors, mentors, academic coaches, and personal and academic counseling. The PNP proposal utilizes this network to enhance student support. Additionally, specialized tutors in nursing will be hired as well as a nursing retention specialist, and staff to teach study skills. An ELL specialist is planned to assist with the PNP cohort members. This reflects increase from the current number of tutors and student support staff assigned to the department.

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

MxCC reports that it regularly collaborates with employers, area schools, MassHire Career Centers, workforce development organizations and local community-based organizations. Working relationships with local career centers enables the MxCC to stay current on regional employment trends. In addition, MxCC also reports over 25 articulation agreements with local high schools that send hundreds of students seeking degrees as well as for dual enrollment to MxCC every semester. The community network of external partnerships with neighborhood-based organizations include such supports as childcare, housing options and others, including Abisi Adult Education, the International Institute of NE and the D'Youville Wellness Center that enables MxCC to train ESL students as CNAs. Participation with Bridges to College, TRAIN, and Workforce Training, TRIO, MA Skills Capital, the Learn and Earn program hosting internships such as Pfizer, Bristol MyersSquib, Quest Laboratories, Genzyme, and Biogen, underscore the depth and breadth of partnerships MxCC can use to support students in the proposed program. Significantly, the Nursing program worked with Beth Israel Lahey Health for some ten years to place incumbent worker CNAs into the RN

program to increase the skilled workforce. As well, MxCC's educational partners include the Upward Board, Talent Search, and Gear-Up programs at Lowell High School as well as their Career Counseling office. MxCC also reports that its employer partners offer many incentives for professional development and career advancement that help retain students. The Nursing Department demonstrated commitment to career mobility and the importance of pursuing continued education by maintaining articulation agreements with 15 institutions of higher learning and post-secondary programs. Various health care providers have provided MxCC with letters of support for the proposed program, They have indicated they will provide clinical practice environments for PNP students within their facility with potential for hires upon graduation.

MxCC plans that the PNP proposed program will have an advisory board consisting of volunteers from clinical agencies, educational institutions, students, graduates, and other nursing workforce leaders. It is expected that the advisory board will meet biannually with the goal of providing advice, support, and suggestions that will be critical to the development of the program, as well as provide opportunities for student and faculty development.

Relationship to MassHire Regional Blueprints

In justifying the implementation of a PNP addition to the Nursing Department, the College has reviewed data available from the Commonwealth of MA Workforce Training site, the American Association of College of Nursing, (AACN), and the NCSBN 2020 National Nursing Workforce Survey, the Department of Employment Training (DET), and the United States Department of Labor. MxCC leadership reports having undertaken a significant feasibility study to identify the need for the PNP while confirming sustainability of the program without the additional support of workforce development funding beyond the current grant award. MxCC has also determined need for the proposed program based on communication and data shared by community healthcare organizations who have identified their critical need for practical nurses. MxCC has cited significant data to confirm the increase in individuals desiring to become health care professionals and an insufficient capacity within the Massachusetts nurse training programs to accommodate them. The data also

suggested that the demand for all health care workers and nurses will continue to increase significantly for the near future². In the full Letter of Intent circulated on October 6, 2023, MxCC followed each article identified with a synopsis of the data pertinent to the proposed program.

Duplication

MxCC finds several PNPs in the area and has depicted some characteristics of the existing programs in the chart below. By comparison, the proposed program recruitment and admission will draw on several internal sources including current Mx CNA program graduates, students on the ADN waitlist, employees with affiliated industry partners, and dual enrollment partners. Admission trends at current nursing programs noted in the chart suggest that all programs will have the ability to increase their program admission numbers and begin to mitigate nursing shortages. The proposed program is planned to extend over a period of 9 months with 33 weeks, two full semesters and single intercession program, providing a unique structure compared to those in the graphic below.

Table PNP programs within 30-mile radius.

Practical Nurse Program	Format	Distance to Mx Nursing Department	Drive Time Minutes	Public Transportation	Admission Patterns 2022-2019 * Board Ed Resources
Middlesex Community College,	Day Option 33 weeks	N/A	N/A	None	N/A-Projected 30-2024 30-2025

² Haddad, L. M., Toney-Butler, T. J., & Annamaraju, P. (2023, February 13). *Nursing shortage*. National Library of Medicine; StatPearls Publishing.; : Rosseter, R. (2022, October). Nursing Shortage Fact Sheet. www.aacnnursing.org . <https://www.aacnnursing.org/news-data/fact-sheets/nursing-shortage>; Covid-19 impact assessment survey - the second year. ANA. (2022, February 28). <https://www.nursingworld.org/practice-policy/work-environment/health-safety/disaster-preparedness/coronavirus/what-you-need-to-know/covid-19-impact-assessment-survey---the-second-year/>; Smiley, R., Ruttinger, C., Oliveira, C., Hudson, L., Allgeyer, R., Reneau, J., Silvestre, J., & Alexander, M. (2021, April 9). *The 2020 National Nursing Workforce Survey*. Journal of Nursing Regulation. <https://www.sciencedirect.com/science/article/pii/S2155825621000272> . Executive Office of Labor and Workforce Development. (n.d.). *2019 Regional Labor Market Data*. Mass.gov. <https://www.mass.gov/info-details/2019-regional-labor-market-data>; Mass.gov. (n.d.). <https://www.mass.gov/doc/the-massachusetts-health-professions-data-series-licensed-practical-nurses-2015-0/download>- Data obtained by the Mass.gov, *Health Professions Data Series – Licensed Practical Nurse 2015* [released June 2018] outlines a number of key metrics that support a need for the Middlesex Community College, PNP

Lowell, MA.					30-2026 30-2027
Shawsheen Technical School, Billerica, MA.	Evening – Weekend Option 40 weeks	12.7 miles	24	none	39 2022 41 2021 37 2020 42 2019
Greater Lowell Technical School, Lowell, MA.	Day/Evening Weekend Option- 40 weeks	5.4 miles	15	45 min	Total 80 consistent over 5 years with 40 D and 40 E
North Shore Community College, Danvers, MA.	Day Option 40 weeks	32 miles	49	2 hr. 10 min	34 2022 32 2021 37 2020 39 2019
Northern Essex Community College, Lawrence, MA.	Day Option 40 weeks	10 miles	21	37	25 2022 27 2021 26 2020 27 2019

Innovative Approaches to Teaching and Learning

The proposed program curriculum content is designed to integrate content knowledge educational from arts, sciences, humanities, and the foundations of nursing. Following the principles of adult education theory, the learning experiences are expected to include classroom theory, laboratory practice, human patient simulation, interprofessional collaboration, and technologies. Related clinical practice will be offered, with commitments in place from multiple partners while remaining congruent with the MxCC mission and values. It is planned that faculty will design, implement, and evaluate the curriculum based on Massachusetts Nurse of the Future Nursing Core Competencies© Licensed Practical Nurse, (NOFNCC-LPN). The NOFCNC-LPN licensed practice nurse core competencies provide the organizing framework. The End of Program Student Learning Outcomes (EPSLO's) will provide organization and direction to the curriculum design. Level competencies will follow a simple to complex taxonomy that includes components of patient centered care across the lifespan and are based in best practice nursing knowledge skills and attitudes. The NCSBN 2021 Practice Analysis for PN Programs and corresponding 2023 NCLEX-PN test blueprint provide direction for core content and percentage distribution of knowledge, skills and abilities within the NOFNCC- LPN. Additional resources for the development of the

curriculum will be the NLN Practical /Vocational Nursing Curriculum Framework, including learning outcomes and teaching strategies.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

The proposed PN certificate program is a priority to MxCC as it underscores the of values equity and inclusion as foundational to excellence, innovation, and success. MxCC reports that the new vision and mission statements reflect continued commitment to the community, with the intentional priority of a commitment to equity. It is anticipated that the proposed PNP will have a variety of admission pathways that will assist in the nursing shortage. As previously mentioned, the proposed PNP is positioned as a pathway for Certified Nursing Assistant program graduates, students who are waiting on Mx ADN admission list, employees from local industry partners, and local high school students via dual enrollment.

Goals and Objectives (Form B)

Consistent with MxCC's strategic plan and the current ADN Nursing Programs mission, the Practical Nursing Program's goals and objectives are expected to reduce disparities of student access to quality programming, promote excellence for faculty and students inside and outside of the classroom, and provide pathways for students' success and access.

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Mx reports that in the fall of 2022, 160 students were enrolled in MxCC's nursing program and 431 were on the waiting list. Completion numbers are as follow: FY18=53 students completed the program, out of 89 total admitted (60% of total class); FY19= 66 completed, out of 91 (73%); FY20= 58 completed, out of 92 (63%) and FY21= 53 completed, out of 89 (60%). MxCC's Registered Nurse program is reported to be always full with hundreds of students remaining on the waiting list year to year. This is the driving impetus and the main motivation for Mx to expand its nursing studies. Investing

in the proposed PNP will begin to address the wait list demand but will also amplify opportunities for the over 60 students enrolled in CNA certification annually with reportedly up to 50% of those individuals returning to MxCC to pursue additional nursing/healthcare degrees or certifications. The strain on Mx labs and classroom space is noted as presenting formidable challenges and updated technology is needed to prepare graduates appropriately.

Enrollment Projections (Form C)

The PNP is planned to enroll 30 students annually with students graduating within a 9-month period. Over the course of 5 years, Mx expects that approximately 150 students will graduate from the program. Additionally, Mx expects a positive impact on the current ADN program, as many of applicants who are wait for space in existing programs, either change institutions or tired of waiting, decide not to pursue nursing.

Resources and Financial Statement of Estimated Net Impact on Institution (Form D, Appendices)

The PNP is planned to include two or three full-time faculty as well as a simulation/lab coordinator with either reassigned time or a stipend position. The full-time faculty are expected to be dedicated to the PNP, will meet MA BORN regulations and NECHE standards for adequate faculty and resources to ensure students are able to achieve learning outcomes. Cohort size, laboratory scheduling and other factors may increase, thus more lab faculty, clinical instructors, and lecturers may be hired. Mx leadership has committed to meeting these needs as they develop. In addition, Mx has committed to funding a laboratory simulation space for both programs (ADN and PNP) and a renovated laboratory space with a new space and equipment. The proposed space requirements for the Nursing Program include three Nursing Learning Center Labs for PNP, ADN, and Open Lab use, with 6 beds in each, 18 total. There would be approximately 3200 SF. The Simulation Lab will consist of eight stations separated by 8' high partitions.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full certificate granting authority for the **Practical Nursing Certificate** submitted by **Middlesex 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: Practical Nursing Program Certificate

Required (Core) Courses in the Major (Total # courses required = 10)		
<i>Course Number</i>	Course Title	Credit Hours
NUR 104	PN Fundamentals of Nursing	5
NUR 105	PN Fundamentals of Nursing Practicum	4
NUR 161	PN Pharmacology and Medication Calculations	2
NUR 162	PN Advanced Pharmacology and Medication Calculations	1
NUR 110	Nursing Care of the Family	4
NUR 111	Nursing Care of the Family Practicum	1
NUR 203	Preparing for Professional Practice	1
NUR 204	Preparing for Professional Practice Practicum	2
NUR 207	Nursing Care of the Adult and Older Adult	6
NUR 208	Nursing Care of the Adult and Older Adult Practicum	5
Sub Total Required Credits		31
Distribution of General Education Requirements		
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		# of Gen Ed Credits
Mathematics and the Natural and Physical Sciences		4
BIO 131	General Biology-4 credits	
Social Sciences		6
PSY 101	General Psychology-3 credits	
PSY 124	Human Growth and Life Span Development-3 credits	
Sub Total General Education Credits		10
Curriculum Summary		
Total number of courses required for the degree		13
Total credit hours required for degree		41 credits/ 990 hours
Prerequisite, Concentration or Other Requirements: Eligible for ENG 101 and Math Module 70; eligibility may be demonstrated through placement, course enrollment, previous college coursework, or high school transcripts.		

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
NCLEX-PN pass rate	Eighty percent (80%) of graduates will pass the NCLEX-PN on the first attempt. The Program's most recent annual licensure pass rate will be at least 80% for all first-time test-takers during the same 12-month period.	<ul style="list-style-type: none"> -Faculty hired for the PN program will attend professional development opportunities to develop PN program test items for next generation NCLEX-PN exam. _ Incorporation of the clinical judgement model in theory/clinical/laboratory settings. - In-services and workshops for test item writing for the PN-NCLEX. -Assist the students in developing personal pathways to success. 	<p>Spring 2026 (NCLEX PN exam for first cohort of students)</p> <p>Ongoing</p>
Graduation rate	Seventy percent (70%) of enrolled students will successfully complete the nursing program within 150% of the normal program time based on their point of entrance.	<ul style="list-style-type: none"> -Development of a boot camp for incoming students so they are better prepared for organization, study techniques, and rigors of program. -Collaborating with the Middlesex Community College's academic centers for enrichment to strengthen students critical thinking skills, goal setting, time management, and study skills. - Strengthen pathways to improve student understanding of college processes, resources, and opportunities leading to success. 	<p>Spring/Summer 24</p> <p>Ongoing</p>
Job Placement	Seventy percent (70%) of new graduates will be employed in entry-level practical nursing positions for which they are educationally	-Preparing for professional practice course will include resume, interview, and cover letter writing support.	Ongoing

	prepared within 6-9 months of graduation.	<ul style="list-style-type: none"> -Career panels and fairs -Job Shadowing with local partners. -Partnership with local area clinical affiliates to hire graduates. 	
Program Satisfaction	Seventy-five percent (75%) of graduates responding to the Program Evaluation will rate their overall satisfaction with the Nursing Program as “satisfied” or “very satisfied.” Graduates’ comments will reflect positive opinions	<ul style="list-style-type: none"> -Implement creative initiatives: examples include <ul style="list-style-type: none"> Mentorships (alumni, faculty, community partners) Student nurse clubs (PN program and ADN program working together to look at success strategies and resources that have been successful). -Foster inclusion and celebrate diversity by promoting a collaborative learning environment and space. - Lab/simulation space will be used to create authentic environments for students to experience and apply their skills and knowledge in safe simulated patient care space. 	2026-ongoing

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	30	30	30	30	30
Continuing Full-Time					
New Part-Time					
Continuing Part-Time					
Totals	30	30	30	30	30

Form D: LOI Budget

One Time/ Start Up Costs	3,600,000					
		Annual Enrollment				1,312 credits
	Cost Categories	Year 1	Year 2	Year 3	Year 4	Year 5
	Full Time Faculty <i>(Salary & Fringe)</i>	291,450	297,279	303,225	309,289	315,475
	Part Time/Adjunct Faculty <i>(Salary & Fringe)</i>	106,560	108,691	110,865	113,082	115,344
	Staff					
	General Administrative Costs	2,900	2,929	4,040	3,000	3,330
	Instructional Materials, Library Acquisitions	24,200	24,442	24,686	24,933	25,183
	Facilities/Space/Equipment	3,200	3,232	3,264	3,297	3,330
	Field & Clinical Resources	2,000	2,020	2,040	2,061	2,081
	Marketing	5,000	4,000	3,000	2,000	1,000
	Other (Specify)	4,800	4,848	4,896	4,945	4,995

<i>One Time/Start-Up Support</i>		<i>Annual Income</i>				
		<i>Revenue Sources</i>	Year 1	Year 2	Year 3	Year 4
	Grants	525,000				
	Tuition	31,488	31,488	31,488	31,488	31,488
	Fees	515,616	515,616	515,616	515,616	515,616
	Departmental					
	Reallocated Funds					
	Other (specify)					
	TOTALS	1,072,104	547,104	547,104	547,104	547,104