BOARD OF HIGHER EDUCATION
REQUEST FOR BOARD ACTION

NO: BHE 26-38

BOARD DATE: February 10, 2026

APPROVAL OF LETTER OF INTENT OF MASSBAY COMMUNITY COLLEGE TO AWARD THE ASSOCIATE OF SCIENCE IN DIAGNOSTIC MEDICAL SONOGRAPHY AND AUTHORIZATION FOR FAST TRACK REVIEW

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of **MassBay Community College** to award the **Associate of Science in Diagnostic Medical Sonography** 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 adopted by the BHE on 2/10/2026.

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

Contact: Richard Riccardi, Sc.D., Deputy Commissioner for Academic Affairs and Student Success

BOARD OF HIGHER EDUCATION
MassBay Community College
Letter of Intent
Associate of Science in Diagnostic Medical Sonography

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

MassBay Community College's proposed Associate of Science in Diagnostic Medical Sonography program is designed to equip students with the necessary skills and knowledge to become proficient entry-level sonographers. This comprehensive curriculum encompasses cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains, with a focus on abdominal-extended and obstetrics and gynecology sonography concentrations. Upon completion, graduates will be prepared to work under physician supervision, utilizing ultrasound technology to obtain diagnostic images that aid in patient diagnosis.

Medical Sonographers are highly skilled healthcare professionals who not only operate ultrasound equipment but also play a crucial role in diagnosing medical conditions. To excel in this role, sonographers must have a deep understanding of anatomy, physiology, and pathology. This expertise, combined with extensive hands-on clinical experience, enables them to interpret ultrasound images in real-time and apply clinical judgment to reach probable diagnoses.

Graduates of the proposed degree program will be eligible to take the national credentialing exam offered by the American Registry of Radiologic Technologist (ARRT) and the American Registry of Diagnostic Medical Sonographers (ARDMS). Passing one of these exams is a requirement for employment as a diagnostic medical sonographer in Massachusetts.

Mission of the Diagnostic Medical Sonography Program

The proposed degree program will provide comprehensive education and training that prepares students with the knowledge, technical skills, and professional competencies required to perform high-quality sonographic procedures. The proposed degree program will promote academic excellence, clinical proficiency, and compassionate patient care while advancing the medical imaging profession. It is also

committed to community engagement through collaborative healthcare partnerships, outreach initiatives, and the preparation of graduates who are responsive to the evolving needs of diverse populations.

The proposed Associate of Science in Diagnostic Medical Sonography was approved by MassBay's Board of Trustees on September 16, 2025. The LOI was circulated on November 6, 2025. Two comments were received, with one comment noting a mathematical computation error in the labor market analysis. The LOI was revised to reflect the clarification.

A. **ALIGNMENT WITH MASSACHUSETTS GOALS FOR HIGHER EDUCATION**

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

Currently, MassBay Community College has three (3) associate degree opportunities in its Division of Health Sciences: AD Nursing, AD Surgical Technology, and AD Radiography. The Division has needed to expand the opportunities for students to earn degrees in other areas of health care which are in demand in the workforce. According to the 2024 Greater Boston Regional Planning Blueprint, Diagnostic Medical Sonographers are in high demand in the Healthcare sector and have a projected supply gap. For these reasons, the proposed degree program has been carefully developed to meet the needs of job seekers and employers in Middlesex County and the broader Boston metropolitan area.

The establishment of a Diagnostic Medical Sonography program at MassBay Community College is in alignment with the institution's mission to offer relevant and high-quality educational programs. This initiative reflects their commitment to addressing the evolving needs of the healthcare sector and their dedication to serving the community. By launching this proposed degree program, Mass Bay aims to cultivate a workforce of highly skilled diagnostic medical sonographers who will contribute to improving healthcare outcomes across Massachusetts. The burgeoning demand for skilled sonographers in Massachusetts necessitates the development of this proposed degree program. According to the U.S. Bureau of Labor Statistics (BLS) Occupational Employment and Wage Statistics, Massachusetts had approximately 1,980 diagnostic medical sonographers employed in 2020. This number is projected to increase to 2,440 by 2030, representing a 23% growth over the decade. The BLS projects a 15% growth rate for the United States from 2023 to 2033, translating to approximately 5,700 annual job openings due to growth and replacement. These figures underscore the urgent need to expand educational programs to accommodate this increase in demand.

This proposed degree program aligns with Mass Bay Community College's strategic plan to promote and expand corporate partnerships and workforce development between the college’s offerings and community medical facilities. Partnerships with hospitals and other imaging centers will be integral to the proposed degree program. Additionally, this proposed degree program will expand the Associate of Science offerings in the Allied Health division. The proposed degree program also aligns with Mass Bay

Community College's mission statement to provide equitable opportunities and a lifetime of professional growth, allowing individuals to thrive in our communities.

In the college's proposed 2024-2028 Strategic Plan, The Academic Program, Objective #1 – Develop new programs and courses, MassBay writes, "*Institutions must constantly adapt to ever-changing workforce demands and be prepared to add programs that serve students and our communities. With the opening of our new building in Framingham, new programs in Health Science, both credit and non-credit, are planned to address the ongoing need for health care professionals….MassBay will develop the following degree, certificate, non-credit programs, and courses: #3 on the list…Diagnostic Medical Sonography*."

Program or Department Supports to Ensure Student Retention and Completion

MassBay Community College offers comprehensive support services to help health science students succeed in their programs, persist in their studies, and complete their certifications or degrees. These services are designed to remove barriers, enhance academic performance, and provide career pathways in healthcare fields.

- **Academic & Career Support for Health Science Students**
    - **Admissions**: Admissions counselors specializing in health sciences for students pursuing health sciences careers.
    - **Advising, Coaching & Transfer Center**: This center helps students with academic planning, transfer opportunities, and personalized coaching to ensure they stay on track.
    - **Academic Achievement Center**: Provides tutoring, peer mentoring, and testing support to improve student performance in health sciences coursework.
    - **Program Faculty Advising**: Health Science students are assigned to program faculty as their advisors once accepted into the program.
    - **Career Services**: Offers career exploration, resume building, and job placement assistance tailored to healthcare professionals.
    - **Career Fairs**: Several programs provide opportunities for Human resources and recruiters to come speak to the students or attend career fairs at healthcare institutions.

- **Student Well-Being & Accessibility**
    - **Basic Needs & Personal Counseling**: This program assists students with food, housing, transportation, and mental health counseling to support their overall well-being.

- **Food Assistance & Nutrition**
    - **Daniel's Table Freezer** (Framingham Campus): Offers frozen meals (individual and family-sized) for students experiencing food insecurity.
    - **Free Monthly Food Market** (Mobile Market): In partnership with the Greater Boston Food Bank, provides fresh groceries at no cost.
    - **Supplemental Food Support**: Includes fresh fruit, snacks, coffee, and hygiene products to support students' daily needs.

- **Financial & Academic Resources**
    - **Financial Aid Office**: This office helps students access scholarships, grants, and other financial resources to reduce financial stress.
    - **Transportation Assistance**: Supports students with commuting costs.
    - **Textbook Support**: Provides financial aid or resources for purchasing required course materials

- **Accessibility Resource Center**: Ensures students with disabilities receive accommodation to support their academic success.

- **Health & Wellness Support**: Offers mental health counseling and wellness programs to help students manage the demands of healthcare training.

- **Engagement & Community for Students**
    - **Student Clubs & Activities**: Encourages participation in student organizations related to health sciences, fostering connections and professional development.
    - **Recreation & Wellness Center Classes**: Provides fitness and wellness programs to promote healthy lifestyles among future healthcare professionals.

These services create a strong support network for MassBay's students, ensuring they have the academic, personal, and professional resources needed to persist and complete their programs.

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

Alliances and Partnerships

During the spring of 2024, MassBay Community College met with Mass General Brigham Workforce and Imaging leadership to discuss a partnership that included Surgical Technology, Radiography and their future Diagnostic Medical Sonography program. Mass General Brigham asked MassBay to keep them abreast of the launch of the Sonography program as they were committed to partnering with MassBay for clinical opportunities. Mass General Brigham's Ultrasound Department leadership reiterated this support to provide clinical sites for the college's students in their recent September 2025 communication.

During the spring of 2024, the Dean met with another potential clinical partner – Metrowest Ultrasound in Natick – who pledged their support of the program for clinical sites and teaching support, as needed. The manager expressed interest in serving on the college's Advisory Board when it was formed.

In the fall of 2024, MassBay met with Newton-Wellesley Imaging Leadership who pledged support for clinical sites when a Diagnostic Medical Sonography program was developed.

In September 2025, MassBay met with Metrowest Medical Center's new CEO, who expressed excitement to partner with MassBay to provide hands-on learning (clinical sites) as well as real-world experience in the hospital.

Advisory Committee & Program Development for Diagnostic Medical Sonography

As part of the programmatic accreditation process, which the proposed degree program is seeking through the (CAAHEP) Commission on Accreditation of Allied Health Education Programs, it is required to have an advisory committee. The committee will be made up of clinical education center representatives, registered sonographers, a medical director, the program director, a clinical coordinator, and public members. Once formed, this committee will meet annually to assess the proposed degree program's curriculum, goals, and overall effectiveness. Their input will ensure continuous improvement by addressing industry advancements and student needs. The advisory committee will be formed in the Spring of 2026.

How Advisory Committee Feedback Shapes the Program

The advisory committee will have a vital role in maintaining high educational standards while ensuring graduates are well-prepared for the demands of the sonography profession. This structured, collaborative approach will ensure the proposed degree program remains responsive, effective, and aligned with healthcare industry trends. Here are some key areas where their feedback will be utilized:

- **Curriculum Refinement**: Integrating insights from physicians, employers, and graduates to adjust course content, ensuring students acquire essential diagnostic imaging skills.
- **Alignment with Program Goals**: Revising the program's mission to meet accreditation standards, evolving healthcare demands, and employer expectations.
- **Program Effectiveness Assessment**: Reviewing student performance data, certification pass rates, and job placement outcomes to identify areas for enhancement.
- **Technological & Clinical Advancements**: Updating coursework to incorporate the latest imaging techniques and medical technology innovations.
- **Student Support & Development**: Strengthening academic advising, clinical training opportunities, and resource accessibility based on student and faculty feedback.

Relationship to MassHire Regional Blueprints

Summary of Workforce Development Needs and Market Demand for Diagnostic Medical Sonography in Massachusetts

- **Regional Workforce Development Needs**
    - The **Greater Boston Region** emphasized the need for healthcare practitioners and technical occupations, including diagnostic medical sonographers (MassHire Department of Career Services, 2024). "In the Greater Boston region, …[t]he top 3 industry sectors, ranked by jobs gained, were professional and technical services (+23,976), healthcare and social assistance (+8,788), and education (+7,383, mostly higher education)" (MassHire Department of Career Services, 2024a, p. 10-11). Healthcare and Social Assistance (NAICS 62) was one of two industry sectors identified as the most important to the region's economic success. The regional planning team noted that "we continue to prioritize healthcare practitioners and technical occupations, with a focus on those that require less than a bachelor's degree" (MassHire Department of Career Services, 2024a, p. 12).
    - **Northeast Region**: Health Care & Social Assistance Occupations (NAICS code 62), including Health Care Practitioners and Technical, is the largest industry sector in

Northeast Massachusetts by number of jobs (MassHire Department of Career Services, 2024b). The region is also projected to add the most net new jobs in Health Care and Social Assistance in the coming decade, with a projected 17% increase (MassHire Department of Career Services, 2024b, pg. 18).

- **Current and Projected Openings**
    - **Current Employment**: According to the Greater Boston Regional Blueprint, there are 96 annual openings (MassHire Department of Career Services, 2024a, p16).
    - **Annual Job Openings**: The Greater Boston Region projections include 96 annual openings with only 13 projected annual completions, resulting in 83 unfilled positions each year within the region (MassHire Department of Career Services, 2024a, Table 5, p. 16).About 9,400 openings for diagnostic medical sonographers and cardiovascular technologists and technicians projected each year, on average, over the decade (O*NET OnLine, 2025).

- **Average Earnings**
    - **Median Annual Salary** (Greater Boston): $98,198 in May 2024 MassHire Department of Career Services, 2024a, Table 5, p. 16).
    - **Median Annual Wage** (state): $89,340 in May 2024 (Bureau of Labor Statistics, 2024).

References

- Bureau of Labor Statistics. (2023). Occupational Employment and Wages, May 2023: Diagnostic Medical Sonographers. Retrieved May 2, 2025, from https://www.bls.gov/oes/2023/may/oes292032.htm
- Bureau of Labor Statistics. (2024). Occupational Outlook Handbook: Diagnostic Medical Sonographers. Retrieved May 2, 2025, from https://www.bls.gov/ooh/healthcare/diagnostic-medical-sonographers.htm
- MassHire Department of Career Services. (2024a). Greater Boston Regional Blueprint. Retrieved May 2, 2025, from https://www.mass.gov/lists/regional-workforce-blueprints
- MassHire Department of Career Services. (2024b). Northeast Massachusetts Regional Labor Force Blueprint 2023-2027. Retrieved May 2, 2025, from https://www.mass.gov/doc/2024-northeast-regional-workforce-plan/download

- MassHire Greater Lowell Workforce Board. (2019). Northeast Regional Workforce Blueprint. Retrieved May 2, 2025, from https://www.mass.gov/doc/2019-northeast-regional-workforce-plan/download.

Duplication

There are three other community college diagnostic medical sonography programs in Massachusetts, each serving different regions of the state:

- **MassBay Community College** is in the **MetroWest** region.
- **Springfield Technical Community College** (STCC) is located in the **Pioneer Valley** region (Western Massachusetts).
- **Middlesex Community College** is in **Northeastern** Massachusetts.
- **Bunker Hill Community College** is in the **Greater Boston** region.

MassBay Community College is proposing a 68-credit Associate of Science (AS) degree in Diagnostic Medical Sonography, designed to stand out from existing programs at Bunker Hill Community College (66 credits), Middlesex Community College (68 credits), and Springfield Technical Community College (64 credits). MassBay's proposed degree program integrates online didactic courses with hybrid and on-campus labs, with labs scheduled on Fridays and Saturdays to offer flexibility for students.

Comparison to Other Programs

- Middlesex Community College is currently the only other college offering some online components in lecture courses.
- Bunker Hill Community College & Springfield Technical Community College provide lectures and labs on campus.
- MassBay's proposed degree program curriculum will focus on both professional and patient-centered coursework to enhance clinical competency and interpersonal skills. What sets MassBay apart is its emphasis on leadership development, integrating community service, and interprofessional education into the program. Diagnostic Medical Sonography (DMS) courses requiring community engagement are DS100-Introduction to Sonography, DS 202-Clinical Education I, and DS 222-Clinical Education III.

Key Differentiators of MassBay's Proposed Degree Program

- Leadership Development Focus: MassBay prioritizes leadership development by integrating specialized coursework aimed at enhancing professional growth and preparing students for advanced healthcare roles. Unlike other programs, MassBay places a stronger emphasis on leadership skills through its Health Science (HL) courses, including HL 117 Soft Skills for Medical Professionals and HL 124 Medical Ethics, totaling 6 credits. This comprehensive approach ensures students are well-equipped for success in the healthcare field.
- Patient-Centered Curriculum: The proposed degree program prioritizes interpersonal communication, ethical decision-making, and stewardship, ensuring graduates can effectively engage with patients in diverse medical settings.
- Community Service Requirement: MassBay integrates community service within its coursework, helping students develop leadership, responsibility, and civic engagement while enhancing their patient-care skills. Diagnostic Medical Sonography (DMS) courses requiring community engagement are DS100, DS 202, and DS 222.
- Interprofessional Education (IPE): Students collaborate with peers across multiple health sciences disciplines, including Radiologic Technology, Nursing, Surgical Technology, EMT, and Paramedicine, to develop team-based communication and problem-solving skills essential for healthcare environments.
- Disaster Drill & Emergency Preparedness Training: The curriculum includes disaster response exercises in collaboration with MassBay's health sciences programs, equipping students with essential emergency preparedness skills—a unique component not found in other DMS programs. The annual Disaster Drill, which currently includes Radiologic Technology, Nursing, Surgical Technology, EMT, and Paramedicine, will now integrate DMS students into this interdisciplinary emergency preparedness training, reinforcing the importance of interprofessional teamwork in crisis situations.

MassBay's comprehensive approach to education ensures that students graduate with not only technical expertise but also strong leadership, interprofessional collaboration, civic engagement, and emergency response skills. Through interdisciplinary teamwork with peers in various health sciences fields and hands-

on community service experiences, students develop the communication, ethical decision-making, and stewardship skills needed to be responsible healthcare professionals and engaged community members.

MassBay Community College's proposed degree program is designed to provide students with a comprehensive, hands-on learning experience using advanced technology, innovative labs, and a curriculum emphasizing professional growth.

State-of-the-Art Equipment & Simulation Labs

- Innovative Ultrasound Technology – Students have access to high-quality imaging equipment like what they will use in clinical practice, ensuring they are well-prepared for real-world sonography.
- Simulation Labs – These labs allow students to hone their technical skills in a controlled environment, practicing diagnostic imaging techniques before applying them in patient care settings.
- Technology Integration – MassBay incorporates the latest medical imaging advancements, helping students stay ahead in the field.

Innovation in Learning Environments

- Hybrid & On-Campus Labs—With weekend lab offerings (Friday and Saturday), students benefit from flexibility while gaining essential hands-on experience.
- Modern Educational Tools – Interactive learning platforms, virtual simulations, and peer collaboration opportunities enhance the educational experience, bridging theory with practice.
- Patient-Centered Approach—The proposed degree program emphasizes soft skills, ensuring graduates excel in professional communication, ethical decision-making, and patient care interactions.

Focus on Professional Development & Soft Skills

- Leadership & Administration Training – Courses equip students with management and administrative skills, preparing them for leadership roles in diagnostic imaging departments.

- Research & Clinical Innovation – MassBay integrates research components, empowering students to contribute to advancements in medical imaging and evidence-based practices.
- Community Service Engagement – The program requires students to participate in community-based healthcare initiatives, reinforcing ethical values, professional responsibility, and patient advocacy.

A Unique, Forward-Thinking Program

MassBay's proposed degree program is more than just technical training—it offers a comprehensive, student-focused education that combines academic rigor, hands-on experience, professional development, and ethical training. Graduates emerge as highly skilled, compassionate, and prepared for leadership roles in medical imaging, equipped with the expertise needed to excel in clinical practice and patient care.

With a curriculum that integrates advanced imaging technology, innovative labs, and real-world application, MassBay ensures students are technically proficient and effective communicators, ethical professionals, and engaged members of the healthcare community. This modern, patient-centered approach positions graduates for success in today's evolving healthcare landscape.

Innovative Approaches to Teaching and Learning

The proposed degree program at MassBay has been thoughtfully designed to incorporate transformative learning methodologies that align with the evolving landscape of healthcare and the growing demand for highly skilled sonographers. The proposed degree program integrates digital technologies, experiential learning, and competency-based education to ensure that graduates possess the expertise required for modern healthcare delivery.

A foundational component of the proposed degree program is the strategic integration of **advanced digital technologies**, which significantly enhances the learning experience. By merging theoretical instruction with hands-on practical training in a simulated clinical setting, students develop the critical thinking skills and technical proficiency necessary to excel in the dynamic field of diagnostic medical sonography.

The Skills/Simulation Lab serves as a cornerstone of the college's experiential learning approach, offering hands-on practice with a variety of diagnostic imaging techniques and equipment. Utilizing phantoms—specially designed anatomical models that replicate human tissue—students refine their imaging skills in a controlled environment, bridging the gap between classroom learning and real-world application. Additionally, computer-assisted imaging technology further enhances learning by providing detailed visualizations of complex anatomical structures and pathologies, enabling students to develop precision and diagnostic accuracy. With state-of-the-art ultrasound machines from GE and Philips, students gain invaluable exposure to the latest industry technology, ensuring they are well-prepared to enter the workforce with confidence.

As a competency-based program, experiential learning is deeply embedded in the curriculum, ensuring students gain real-world clinical experience essential for skill mastery. Through clinical placements in diverse healthcare settings, immersive case studies, and interdisciplinary collaborations, students engage in hands-on training across a broad range of sonographic examinations.

The proposed degree program also fosters interprofessional education, encouraging students from different healthcare disciplines to learn and work together. This collaborative approach enhances their understanding of how teamwork improves patient care. By interacting with professionals from various specialties, students gain insight into diverse treatment approaches, fostering a team-based mindset that supports more comprehensive, patient-centered care.

In the clinical setting, competency-based learning is prioritized to ensure that students demonstrate proficiency in performing comprehensive diagnostic imaging examinations and effectively communicate with patients and healthcare teams. Competency assessments evaluate students' ability to apply their knowledge in practical scenarios, reinforcing their ability to navigate complex diagnostic challenges with confidence. This rigorous approach guarantees that graduates emerge fully prepared to meet the evolving demands of the healthcare industry, delivering high-quality diagnostic imaging services that improve patient outcomes.

MassBay is committed to cultivating a dynamic, innovative, and future-focused learning environment. By integrating cutting-edge digital technologies, experiential learning opportunities, and competency-based

assessments, the proposed degree program equips students with the technical skills, problem-solving abilities, and leadership qualities necessary for advancing their careers in diagnostic medical sonography.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

The proposed degree program is a priority because of the significant shortage of professionals in this field and the growing need for this level of diagnostic healthcare. According to the Greater Boston FY 24 Regional Planning Blueprint, there are 96 annual openings, 13 graduates who stay in the region, leaving a supply gap of 83 annually.

Quoting the Journal of Ultrasound Med, these statistics frame why this program is a priority, "Ultrasound exams in the United States from 2011 to 2021 increased from 38.6 million to 59.8 million (+55.1%,) while the number of sonographers (2011-2021) increased from 54,760 to 78,640 (+43.6%). There was a significant difference between supply and demand of sonographers with the number of sonography graduates (2011-2021) increasing from 4,386 to 5,393 (+23.0%) while the number of open sonographer positions (2012-2021) increased from 18,462 to 25,162 (+36.3%)."

J Ultrasound Med. 2024 Jul;43(7):1289-1301. doi: 10.1002/jum.16453. Epub 2024 Mar 27.

Mission: MassBay Community College is a compassionate, student-centered, accessible institution of higher learning, serving a richly diverse population. MassBay is a bridge to equitable opportunities, sustained success, and a lifetime of professional and personal growth. Through transformative education, MassBay contributes to the growing regional economy and cultivates the potential of our students, empowering them to thrive in our local and global communities.

Consistent with the mission of the College, "student-centered and accessible," the proposed degree program is designed to consider the needs of today's student. With that in mind, the proposed degree program coursework will be offered with levels of flexibility, including some online and hybrid opportunities and options for Saturday labs. "It is a bridge to equitable opportunities." - There is a shortage of Ultrasound/Sonography technologists in the community and in MassBay's region. Currently there are only three (3) associate degree programs in MassBay's area to help fill this employment need.

Many individuals want to become sonographers, but the education is not conveniently located. Placing an associate degree program in this area creates an opportunity for those interested in the profession to have the training and education necessary. MassBay is the bridge between interest and opportunity. For this same reason, access to the proposed degree program will support the needs of the hospital and health care partners in the community, resulting in a boost to the regional economy.

Goals and Objectives (Form B)

See the LOI Program Goals and Objectives table

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C)

The proposed degree program anticipates an initial cohort of 15 students. In subsequent years, enrollments are expected to be 15 students, resulting in a total of 30 students in the proposed degree program at any given time over the 5-year reporting period of the Letter of Intent.

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

The proposed degree program will use a mix of full-time and part-time faculty to deliver the proposed degree program curriculum. Given the nature of the proposed degree program, the facilities make of the majority of the other expenses. Based on the enrollment projections, revenue from tuition and fees should be able to offset the proposed degree program expenses resulting in modest profits over the next five years.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Associate of Science in Diagnostic Medical Sonography** program submitted by **MassBay 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

Required (Core) Courses in the Major (Total # courses required = 11***)***		
Course Number	Course Title	Credit Hours
DS 100	Introduction to Sonography	1
DS 101	Sonography Patient Care	1
DS 102	Abdominal Sonography I w/Lab	3
DS 110	Abdominal Sonography II w/Lab	3
DS 111	Sonographic Physics and Instrumentation I	3
DS 112	Superficial Structures w/Lab	2
DS 113	Gynecological and First Trimester Obstetrics w/Lab	3
DS 120	Clinical Introduction	1
DS 121	Sonographic Physics and Instrumentation II	2
DS 122	Obstetrical Sonography I w/Lab	3
DS 200	Obstetrical Sonography II w/Lab	3
DS 201	Introduction to Vascular Technology w/Lab	3
DS 202	Clinical Education I	3
DS 210	Sonography Subspecialties	2
DS 211	Sonographic Analysis	2
DS 212	Advanced Physics and Instrumentation	1
DS 213	Clinical Education II	4
DS 220	Sonography Seminar	1
DS 221	Sonography Capstone	1
DS 222	Clinical Education III	4
HL 117	Soft Skills for Medical Professionals	3
HL 124	Medical Ethics	3
	Sub Total Required Credits	52
Elective Courses (Total # courses required = 3) *(attach list of choices if needed)*		
	Sub Total Elective Credits	0

Distribution of General Education Requirements Attach List of General Education Offerings (Course Numbers, Titles, and Credits)	# of Gen Ed Credits
(English Composition I, English Composition II, Humanities/Arts Elective) EN 101 English Composition I Credits 3 EN 102 English Composition II Credits 3	6
Arts and Humanities, including Literature and Foreign Languages CT 100 Critical Thinking Credits 3 HL 117 Soft Skills for Medical Professionals Credits 3 HL 127 Medical Ethics Credits 3	9
Mathematics and the Natural and Physical Sciences (Statistics, Physics I) PY 101 College Physics w/Lab Credits 4	4
Social science or behavioral science PS 101 Introduction to Psychology Credits 3 or SO 101 Introduction to Sociology Credits 3 or SO 120 Disabilities: Diagnosis and Interventions Credits 3	6
Sub Total General Education Credits	22

Curriculum Summary	
Total number of courses required for the degree	27
Total credit hours required for degree	68

Prerequisite, Concentration or Other Requirements

BI 215*Anatomy and Physiology I w/Lab

*BI 101 or 110 are prerequisite for BI 215

BI 217 Anatomy and Physiology II w/Lab

HL 103 Medical Terminology

MA 102 or MA 104 College Algebra or Pre-Calculus

Form B: LOI Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
Prepare students to be able to apply skills and knowledge utilizing the cognitive, psychomotor, and affective learning domains to provide safe and competent patient care as an entry level Diagnostic Medical Sonographer.	The percentage of students graduating and entering the field of diagnostic medical sonography within 1 year of their graduation date. Graduate Survey Employer Survey	Cognitive will be assessed through examinations. Psychomotor will be measured with skills assessments. Affective assessments will be continually evaluated through peer interaction.	Annual Assessment
Demonstrate critical thinking skills by passing the credentialing examination.	ARRT *(American Registry of Radiologic Technologists)* and ARDMS *(American Registry for Diagnostic Medical Sonography)* exam pass rates within one year of graduation The ARRT (American Registry of Radiologic Technologists) offers an exam that provides certification and registration in a wide range of radiologic disciplines, including sonography. The ARDMS (American Registry of Diagnostic Medical Sonographers) offers credentials in various specialty areas of sonography. Both credentials are recognized nationally, with the ARDMS	To support success in passing the national credentialing exams in sonography, the program's core curriculum includes two courses dedicated to exam preparation. One course focuses on ultrasound physics and instrumentation, while the other prepares students for the specialty examinations in Abdomen and OB/GYN	Annual ARDMS SPI *(Sonography Principles and Instrumentation*) exam at the end of year one. ARRT and ARDMS specialty exams upon graduation at the end of year two.

	credential being considered the gold standard.		
Demonstrate proficiency in both theoretical and practical aspects of sonography, ensuring a comprehensive understanding of anatomy, pathology, patient care, and imaging techniques.	Affective evaluations, using a specific grading rubric, will be conducted at least once per semester during labs, scenarios, and clinical rotations by both peers and instructors. Graduate Survey Employer Survey	Clinical rotations will help students develop essential skills. With a rigorous lab skills and Sim Lab component, the program provides ample opportunities for students to practice and refine the competencies necessary for success.	Clinical/Sim Lab - each Semester evaluations. Annual Graduate and Employer Surveys
Developing lifelong learning habits through the ability to effectively adapt to evolving technologies in both academic and professional contexts	• Physical demonstration of adaptation during applicable sonographic cases. • Clinical Evaluations • Employer Survey	**Skills/Simulation Lab** • Students will be exposed to many different scenarios which will require adaptation. The Skills/Simulation Lab is designed to provide hands-on experience with various diagnostic imaging techniques and equipment. This includes phantoms, specially designed models that simulate human tissue and anatomy. Phantoms allow students to practice and refine their imaging skills in a controlled environment, ensuring they are well-prepared for real-world clinical situations. • Additionally, the lab incorporates computer-assisted imaging technology, which enhances the	• Skill lab- Each semester • Clinical rotation- Each semester • Employer Survey Annual

		learning experience by providing detailed visualizations and simulations of complex anatomical structures. This technology allows students to explore and understand the intricacies of diagnostic imaging, improving their ability to interpret and analyze images accurately. • Through these advanced training methods, students develop critical thinking and problem-solving skills, as they learn to adapt to various clinical scenarios and challenges. The combination of hands-on practice with phantoms and computer-assisted imaging ensures that students gain a comprehensive understanding of diagnostic imaging, preparing them for successful careers in the field. • Clinical rotation provides hands-on learning. • Six months to one year post graduation	
Develop clinical competence in diagnostic medical sonography by recognizing the patient as a whole	Clinical Preceptor Evaluations Employer Surveys	Lecture, Skills/Sim Lab. Provide a curriculum with outline requirements set by programmatic CAAHEP/JRCDMS accreditation and the	Clinical Preceptor Evaluations End of each clinical semester.

person, addressing their social, cultural, religious, and ethical dimensions to meet biopsychosocial needs. Strengthening practical skills through partnerships with local hospitals and clinics, providing hands-on training opportunities that enable students to apply their knowledge in real-world settings and refine essential clinical abilities for professional practice		National Education Curriculum (NEC) for diagnostic medical sonography.	Employer surveys are annual.

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	15	15	15	15	15
Continuing Full-Time	0	15	15	15	15
New Part-Time	0	0	0	0	0
Continuing Part-Time	0	0	0	0	0
Enrollment Totals	15	30	30	30	30

Form D: LOI Program Budget

One Time/ Start Up Costs						
		Annual Enrollment				
	Cost Categories	**Year 1 (2026-2027**	**Year 2 (2027-2028)**	**Year 3**	**Year 4**	**Year 5**
	Full Time Faculty *(Salary & Fringe)*	$126,150	$259,868	$267,664	$275,695	$283,966
	Part Time/Adjunct Faculty *(Salary & Fringe)*	$80,000	$85,000	$90,000	$95,000	$105,000
	Staff					
	General Administrative Costs Medical Director, accreditation, travel, mileage.	$23,000	$23,000	$23,000	$23,000	$23,000
	Instructional Materials, Library Acquisitions	$6,000	$6,000	$8,000	$8,000	$8,000
	Facilities/Space/Equipment	$65,000	$65,000	$75,000	$75,000	$75,000
	Clinical Resources	$4,000	$4,000	$5,000	$5,000	$5,000
	Marketing					
	Expenses Total	$304,150	$442,868	$468,664	$481,695	$499,966

One Time/Start-Up Support			***Annual Income***			
	Revenue Sources	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**
	Grants	0	0	0	0	0
	Tuition	$26,280	$37,080	$37,080	$37,080	$37,080
	Fees	$301,425	$447,449	$456,222	$464,996	$473,769
	Departmental	0	0	0	0	0
	Reallocated Funds	0	0	0	0	0
	Other (specify)	0	0	0	0	0
	Income Total	$327,705	$484,529	$493,302	$502,076	$510,849