

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

NO.: BHE 26-46

BOARD DATE: April 7, 2026

**APPROVAL OF LETTER OF INTENT OF MIDDLESEX COMMUNITY COLLEGE TO AWARD THE
ASSOCIATE OF SCIENCE IN ANESTHESIA TECHNOLOGY FOR FAST TRACK REVIEW**

MOVED: The Board of Higher Education (BHE) has evaluated the Letter of Intent of **Middlesex Community College** to award the **Associate of Science in Anesthesia Technology** 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 4/7/2026.

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
2026
Middlesex Community College
Letter of Intent
Associate of Science in Anesthesia Technology**

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

The proposed degree program is designed to prepare highly skilled, entry-level anesthesia technologists who are competent, workforce-ready, and credential-eligible through the American Society of Anesthesia Technologists and Technicians (ASATT). The mission of the proposed degree program is to expand access to a high-demand, specialized healthcare career by providing students with comprehensive didactic, simulation, and clinical education delivered through an innovative partnership between Middlesex Community College and Lahey Hospital & Medical Center (LHMC).

All anesthesia-specific instruction, laboratory experiences, and clinical practicums will take place on-site within the Department of Anesthesiology, Perioperative, and Pain Medicine at LHMC, where students are taught and supervised by practicing Certified Registered Nurse Anesthetists (CRNAs), Anesthesiologists, and experienced Anesthesia Technologists. This employer-embedded model ensures students gain real-world experience in a tertiary-care environment while mastering anesthesia equipment, patient monitoring, pharmacology, infection control, and perioperative support.

The proposed degree program's intent is to address a critical workforce shortage in Massachusetts, expand equitable entry points into allied health professions, and support Middlesex's mission to provide accessible, high-quality, workforce-aligned education. Graduates will be prepared to contribute to safe and effective anesthesia care across hospital operating rooms, ambulatory surgery centers, and procedural suites throughout the region.

The proposed Associate of Science in Anesthesia Technology was approved by Middlesex's Board of Trustees on December 5, 2025. The LOI was circulated on January 9, 2026. 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 proposed degree program directly advances Middlesex's mission to expand equitable access to high-quality, workforce-aligned academic programs and to close opportunity gaps for historically underserved students. As the first program of its kind in New England, it offers a unique entry point into a high-demand health career that does not currently exist anywhere in the region. This creates new opportunities for students who may not pursue traditional nursing or allied health pathways due to length, cost, or competitive admissions constraints.

Addressing Gaps in Opportunity

1. Creation of a New Accessible Healthcare Pathway

Anesthesia Technology is a specialized, high-skill profession that has historically been filled through on-the-job training — an approach that limits equitable access and pay and disproportionately benefits those with existing hospital connections. By formalizing this pathway within Middlesex, the proposed degree program opens a previously inaccessible field to first-generation students, adult learners, low-income students, linguistically diverse learners, and students from communities underrepresented in health professions.

2. Embedded Clinical Training at Lahey Hospital & Medical Center (LHMC)

The proposed degree program's design ensures that all anesthesia-specific coursework, simulation, and clinical practicum experiences occur on-site at Lahey Hospital and Medical Center, a high-volume tertiary care center serving diverse patient populations. This structure provides students — especially those without prior healthcare experience — with early, continuous, real-world immersion in a professional clinical environment. For many students, this level of access to a major healthcare employer closes the opportunity gap created by limited professional networks or lack of exposure to hospital-based careers.

3. Reduced Financial Barriers Through Optional Paid Apprenticeship

Lahey's optional paid apprenticeship pathway offers students the ability to earn income while completing the proposed degree program. This reduces the financial strain that often affects community college students and can be a driver of attrition. While optional (to avoid restricting access), the apprenticeship provides significant support for students balancing work, family responsibilities, and education.

4. Clear Workforce Pipeline to High-Wage Employment

Anesthesia Technologists earn competitive entry-level wages, are benefits eligible with strong career ladder potential (e.g., Anesthesia Technologist leadership and preceptor roles and specialty procedural support roles). For Middlesex's student population, including many entering with limited resources, the proposed degree program creates a reliable pathway to financial stability and long-term career growth.

Addressing Gaps in Achievement

1. Cohort-Based Model with Structured Academic Supports

The proposed degree program uses a highly structured cohort model — an evidence-based approach that improves retention for underrepresented students. Students receive embedded advising, faculty mentorship from LHMC anesthesia department members, and coordinated support through ACE, tutoring centers, and academic coaching. These supports directly help reduce gaps in completion rates.

2. Culturally Responsive and Hands-On Curriculum

The combination of simulation-based instruction, patient-facing clinical rotations, and faculty with active clinical experience supports diverse learning styles and is particularly effective for English language learners and first-generation college students. Teaching that emphasizes teamwork, communication, and clinical reasoning supports equitable mastery of complex skills.

3. Early and Frequent High-Impact Experiences

Students engage in hands-on clinical experiences beginning in the third semester. High-impact practices such as applied clinical learning, integrated simulation, and real-time supervision by CRNAs and Anesthesiologists have been shown to reduce equity gaps and improve persistence.

Alignment With Middlesex's Campus Goals

The proposed degree program is tightly aligned with Middlesex's strategic plan and institutional priorities:

1. Workforce & Economic Development

Middlesex is committed to responding to regional workforce shortages and creating career pathways aligned with employer needs. The proposed degree program was developed in direct partnership with Lahey Hospital's Department of Anesthesiology to address a critical shortage of trained Anesthesia Technologists in Massachusetts — a shortage documented by ASATT, MassHire, and the Massachusetts Healthcare Workforce Blueprint.

2. Equity-Minded Access and Student Success

The proposed degree program supports Middlesex's guiding principle of equity by expanding access to a new, high-wage health career pathway, building wraparound supports, and intentionally designing curriculum and advising models that promote persistence for first-generation and underserved students.

3. Strengthening Employer Partnerships

The proposed degree program deepens Middlesex's longstanding collaboration with regional healthcare systems by creating an employer-embedded instructional model. The proposed curriculum is taught and supervised by members of Lahey's Anesthesia department, positioning Middlesex as a leader in innovative employer-college partnerships.

4. Cross-College Enrollment and Interdisciplinary Growth

The proposed degree program expands enrollment in key general education areas — English, math, humanities, and social/behavioral sciences — supporting the academic vitality of multiple divisions across the College.

5. Mission-Centered Program Expansion

Middlesex's mission emphasizes affordability, excellence, and community-serving workforce preparation. The proposed degree program exemplifies these priorities by offering an accessible degree in a high-need field that improves community health outcomes and enhances economic mobility.

Program or Department Supports to Ensure Student Retention and Completion

The proposed degree program incorporates a coordinated set of academic, clinical, and student-support practices to promote persistence, timely completion, and readiness for national certification. Students progress through the proposed degree program in a cohort beginning in the third semester, creating a structured learning environment with clear expectations, consistent sequencing, and strong peer support — all of which are known to improve retention in allied health programs.

All anesthesia-specific coursework, simulation, and clinical experiences take place on-site at Lahey Hospital & Medical Center under the direct supervision of practicing CRNAs, Anesthesiologists, and experienced anesthesia technologists. This high-touch instructional model ensures that students receive daily guidance, frequent formative feedback, and immediate support when areas of improvement are identified.

Middlesex provides robust academic support, including specialized advising for selective health programs, tutoring through ACE, writing and study-skills support, and academic coaching. The proposed degree program uses Trajecsyst, a clinical tracking system that allows faculty to monitor competencies in real time and intervene early if students fall behind.

Students may also participate in an optional paid apprenticeship at Lahey, which helps reduce financial barriers and reinforces clinical learning, though it is not required for degree completion.

Together, these integrated supports — cohorted instruction, intensive clinical supervision, academic assistance, and real-time competency tracking — ensure that students persist, graduate, and are well prepared for the Certified Anesthesia Technologist. National Certification Exam.

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

The proposed degree program is built on a strong employer-embedded partnership between Middlesex and Lahey Hospital & Medical Center (LHMC), home to one of the region's largest anesthesia departments. LHMC is the primary clinical and instructional partner, providing on-site simulation labs, anesthesia equipment, clinical rotations, and faculty drawn from its practicing CRNAs, Anesthesiologists, and experienced anesthesia technologists. This collaboration ensures that students receive current, industry-aligned training that reflects the evolving standards of anesthesia care.

Middlesex maintains active outreach with regional PK–12 partners and technical high schools, including Essex North Shore Agricultural & Technical School District and Greater Lowell Technical High School, to build awareness of emerging health career pathways. These alliances will support early pipeline development, dual enrollment advising, and informational programming for students exploring allied health professions.

The College also collaborates with statewide organizations such as MassHire, the Executive Office of Education, and the Healthcare Workforce Initiative to align program development with documented workforce needs.

An Advisory Committee will be convened for the proposed degree program and will include representatives from LHMC's Department of Anesthesiology, perioperative leadership from regional hospitals, program faculty, academic advising, and workforce development partners. The advisory group will meet at least annually to review workforce trends, program outcomes, curriculum updates, clinical placement capacity, equipment needs, and certification expectations. Their recommendations will guide continuous improvement, ensuring the curriculum remains current with anesthesia technology standards, advances in equipment and monitoring, and employer expectations for entry-level technologists.

Through these strategic partnerships and advisory structures, the proposed degree program will remain responsive to regional workforce needs and aligned with best practices in anesthesia technology education.

Relationship to MassHire Regional Blueprints

The proposed degree program is directly aligned with documented regional workforce priorities and employer demand in Massachusetts. The following plans demonstrate strong and consistent emphasis on healthcare technical occupations, career pathways, and credentialed workforce development.

Regional Plan Evidence:

- Boston Private Industry Council; MassHire Boston Workforce Board; MassHire Metro North Workforce Board; MassHire Metro South/West Workforce Board. (2024, June). Greater Boston FY 2024 Regional Planning Blueprint. Retrieved from <https://www.mass.gov/doc/2024-greater-boston-regional-workforce-blueprint/download> (Accessed November 17, 2025). Massachusetts Government
 - This blueprint identifies Health Care and Social Assistance as a priority industry across the Greater Boston region and emphasizes aligning education and training with high-demand occupations.
 - It states the mission of aligning K-12, higher education, and workforce programs to reduce skill gaps in high-demand fields and improve access for underrepresented populations.
- UMass Donahue Institute. (2024, August). Northeast Massachusetts Regional Labor Force Blueprint 2023-2027. Retrieved from <https://masshire-northshorewb.com/wp-content/uploads/NE-Mass-Labor-Force-Blueprint-Final-August-2024.pdf> (Accessed November 17, 2025). MassHire North Shore Workforce Board
 - The Northeast Massachusetts region (which includes parts of Middlesex County) lists Health Care and Human Services among its four “priority industries.”
 - It highlights the need for technical training programs, and the blueprint specifically mentions that local employers report difficulty recruiting workers for high-skill health occupations.
- Massachusetts Executive Office of Labor & Workforce Development / MassHire. (2024, May). Regional Workforce Blueprints – Regional Plan Blueprints. Retrieved from

<https://www.mass.gov/lists/regional-workforce-blueprints> (Accessed November 17, 2025).

Massachusetts Government

- This resource lists all regional blueprints, pointing to a statewide trend: workforce boards are committing to developing credentialed pathways, work-based learning, and employer-engaged training in priority sectors like healthcare.

Alignment of the Proposed Degree Program:

- The proposed degree program addresses the priority industry of Health Care and Social Assistance by preparing graduates for a specialized, in-demand role within hospital and surgical environments.
- The proposed degree program is employer-developed and employer-embedded (in partnership with Lahey Hospital & Medical Center), aligning with regional plans emphasis on employer engagement and training responsiveness.
- By leading to the credential of Certified Anesthesia Technologist (Cer.A.T.T.), the proposed degree program supports the regional plans' focus on credential attainment and career pathways for high-skill, high-growth occupations.
- The optional paid apprenticeship further aligns with the plans' emphasis on integrated work-based learning models and high-impact educational practices.
- The proposed degree program addresses equity goals by providing a new access point into a technical healthcare career for historically underrepresented and first-generation students — supporting the blueprints' commitment to reducing skill gaps and advancing inclusive workforce development.

Given the consistent prioritization of healthcare technical occupations in multiple Massachusetts regional workforce blueprints, the employer-informed design of the proposed degree program, and its credentialed pathway into a high-demand career field, the proposed degree program is demonstrably aligned with regional workforce development plans and employer needs

Duplication

There are currently no Anesthesia Technology programs—at the entry level certificate or associate degree level—offered by any public or independent higher education institution in Massachusetts or the broader

New England region. The proposed degree program would be the first and only accredited pathway preparing students for the Certified Anesthesia Technologist (Cer.A.T.T.) credential in the region.

While some institutions employ on-the-job-trained anesthesia technicians, no colleges or training providers in Massachusetts offer a formal academic program aligned with CAAHEP (Commission on Accreditation of Allied Health Education Programs) or CoA-ATE (Committee on Accreditation for Anesthesia Technology Education) standards. Existing pathways at regional hospitals rely on short-term internal training, which does not lead to national certification and does not provide an accredited academic degree.

Key Differences Between Middlesex's Proposed Degree Program and Existing Options

1. Only CAAHEP-Aligned Program in New England

Middlesex's proposed degree program would be the first aligned with the national anesthesia technology curriculum and the only credential-eligible pathway in the region.

2. Employer-Embedded Instruction at Lahey Hospital

Unlike informal on-the-job training, Middlesex's proposed degree program delivers all professional coursework, simulation experiences, and clinical rotations on-site at Lahey Hospital & Medical Center with instruction provided by practicing CRNAs, anesthesiologists, and experienced anesthesia technologists. No other institution in Massachusetts offers an employer-embedded academic model for this profession.

3. Pathway to National Certification (Cer.A.T.T.)

The proposed degree program is specifically designed to prepare graduates for ASATT's national certification exam. No comparable credentialing pathway exists elsewhere in the region for students entering the field of Anesthesia Technology.

4. Associate Degree with Transfer and Career Mobility

Students will earn an associate degree that supports long-term advancement and provides academic mobility—opportunities not available through hospital-based internal training.

5. Meets Employer Demand and Supports Wage Growth

Lahey Hospital has expressed strong interest in a formal academic program to support:

- Higher wage tiers for certified technologists
- Recruitment stability
- Enhanced retention
- Increased standardization of skills and competencies

These workforce benefits cannot be achieved through current unaccredited, non-degree training models.

Innovative Approaches to Teaching and Learning

The proposed degree program is intentionally designed to incorporate multiple innovative and high-impact practices that support student learning, skill development, and workforce readiness. These approaches align with CAAHEP/CoA-ATE standards and reflect current best practices in allied health education.

1. Employer-Embedded Experiential Learning at Lahey Hospital

A distinguishing feature of the proposed degree program is that all anesthesia-specific coursework, labs, and clinical experiences occur on-site at Lahey Hospital & Medical Center. Students learn directly in a high-acuity surgical environment, using current anesthesia machines, monitoring equipment, and procedural technologies. This model provides immersive, real-time experiential learning that mirrors professional practice.

2. Simulation-Based Instruction

Students will train in Lahey's advanced simulation labs, where they will practice:

- Anesthesia machine setup and troubleshooting
- Airway management equipment use
- Monitoring-device calibration and interpretation
- Crisis response scenarios and equipment failure drills

Simulation provides a safe environment to build confidence, competency, and teamwork skills before students work with patients.

3. Competency-Based Clinical Training

The proposed degree program would use Trajecsyst, a digital clinical tracking system, to monitor skill attainment and clinical performance. Students submit competencies, receive digital evaluations from preceptors, and track progress toward CoA-ATE required skills. This competency-based approach supports consistent learning and early intervention when remediation is needed.

4. Hybrid and Digital Coursework

Several didactic components will be delivered in hybrid or online formats using Middlesex's learning management system. Digital content includes:

- Recorded lectures from anesthesia faculty
- Virtual demonstrations of equipment
- Online pharmacology modules
- Interactive case studies

These resources allow students to review complex material outside of class and support diverse learning needs.

5. Optional Paid Apprenticeship (Innovative Work-Based Pathway)

Students may elect to participate in an optional paid apprenticeship with Lahey, integrating paid employment with academic learning. This model helps reduce financial barriers, supports retention, and provides additional hands-on experience beyond standard clinical hours.

6. Interprofessional Exposure

Because the proposed degree program is embedded within a large academic medical center, students interact regularly with surgical teams, nurses, CRNAs, anesthesiologists, radiology staff, and technologists in other procedural areas. This integrated training supports communication, teamwork, and readiness for complex perioperative care environments.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

The proposed degree program is a high institutional priority because it directly advances Middlesex's mission to provide accessible, affordable, and workforce-aligned education that strengthens economic mobility and meets the needs of the region. As the first program of its kind in New England, it expands Middlesex's leadership in health education and directly responds to urgent, well-documented shortages within Massachusetts' healthcare workforce.

Alignment with Middlesex's Mission

Middlesex's mission emphasizes equity, opportunity, and community responsiveness. The proposed degree program fulfills this mission by:

- Creating a new entry point into a high-skill, high-wage healthcare profession not currently accessible through any regional college pathway
- Providing hands-on learning and real-world clinical training at Lahey Hospital & Medical Center
- Supporting first-generation, adult, and underrepresented learners through a structured, cohorted, and faculty-supported pathway
- Reducing barriers to education through hybrid instruction, robust academic supports, and optional paid apprenticeship opportunities

Alignment with the MCC Strategic Plan

The proposed degree program advances several core pillars of Middlesex's strategic plan:

1. Workforce Development & Regional Partnerships

The proposed degree program was developed in direct response to the needs of Lahey Hospital & Medical Center — among the region's largest anesthesia service providers—and strengthens Middlesex's role as a key workforce partner. The employer-embedded model exemplifies Middlesex's commitment to aligned, high-impact partnerships that lead directly to employment.

2. Equity and Access

The proposed degree program expands access to a high-demand field where entry-level employees have traditionally relied on ad hoc, on-the-job training. By offering a formal, accredited degree pathway, Middlesex reduces inequities in access to healthcare careers and creates a stable path toward certification and wage growth.

3. Academic Excellence and Innovation

The hybrid delivery model, use of digital simulation, and competency-based clinical evaluation reflect Middlesex's emphasis on innovative teaching and learning practices. Embedding the proposed curriculum in a major medical center gives students high-quality, real-world experience that strengthens retention and credential attainment.

4. Institutional Vitality and Enrollment Growth

The proposed degree program attracts new students to Middlesex, supports enrollment in general education courses across divisions, and strengthens the college's profile as a leader in emerging health professions education.

The proposed degree program is a strategic, mission-driven initiative that supports Middlesex's priorities in workforce alignment, equity, innovation, and community impact. By creating the region's first accredited pathway to this in-demand profession, Middlesex is fulfilling its mission to deliver high-quality, accessible education that meets the evolving needs of students, employers, and the Commonwealth.

Goals and Objectives (Form B)

The proposed degree program is designed to prepare competent, entry-level Anesthesia Technologists who meet all CAAHEP and CoA-ATE expectations in the cognitive, psychomotor, and affective learning domains. The program's overarching goals are to:

1. Develop students' proficiency with anesthesia equipment and perioperative technologies.
2. Build strong foundational knowledge of anatomy, physiology, pharmacology, and patient monitoring.
3. Ensure safe, ethical, and culturally competent practice.
4. Strengthen teamwork, communication, and professional behavior.
5. Cultivate critical thinking and problem-solving abilities in routine and emergent situations; and
6. Prepare graduates for national certification eligibility (Cer.A.T.T.) and successful employment within the anesthesia care team.

These goals are operationalized through the proposed degree program's seven Program Student Learning

Outcomes (PSLOs). The proposed curriculum was designed with not only the accreditation standards of CAAHEP/CoA-ATE, but also in alignment with the requirements of the A.S.A.T.T. for Cer. A.T.T. Upon completion of the proposed degree program, graduates will be able to:

1. Demonstrate proficiency in anesthesia equipment preparation, operation, troubleshooting, and maintenance, ensuring patient safety throughout the perioperative period.
2. Apply comprehensive knowledge of anatomy, physiology, pharmacology, and patient monitoring modalities to support diverse anesthesia care situations.
3. Integrate infection control, aseptic technique, and regulatory compliance into all aspects of anesthesia technology practice.
4. Exhibit professional communication, teamwork, and ethical behavior within the anesthesia care team.
5. Utilize critical thinking and problem-solving skills to manage equipment malfunctions and respond appropriately to evolving clinical conditions.
6. Demonstrate cultural competence and respect for patient dignity in all interactions, ensuring ethical and patient-centered care.
7. Successfully prepare for and meet all CAAHEP and CoA-ATE competencies, positioning graduates for national certification (Cer.A.T.T.) and entry-level practice.

To achieve these goals and outcomes, the proposed degree program integrates didactic coursework, hands-on laboratory training, high-fidelity simulation, and immersive clinical experiences conducted on-site at Lahey Hospital & Medical Center. Students learn directly from practicing CRNAs, Anesthesiologists, and experienced anesthesia technologists, ensuring real-world exposure to anesthesia equipment, monitoring systems, and perioperative workflows.

Learning is competency-based and supported by digital clinical tracking through Trajecsys, allowing faculty to monitor student progress, provide timely feedback, and ensure mastery of each required skill. The capstone experience strengthens critical thinking, collaboration, and certification readiness. Advisory committee input, employer feedback, and clinical partner review ensure that the curriculum remains aligned with evolving industry needs, safety standards, and anesthesia care practices.

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (Form C)

Enrollment projections for the proposed degree program are based on employer demand, regional workforce need, and the program's capacity at Lahey Hospital & Medical Center. The proposed degree program is planned to scale gradually to ensure high-quality clinical placements, strong supervision, and compliance with CAAHEP/CoA-ATE expectations. Projections for the first five years are:

- Year 1: 12 students
- Year 2: 15 students
- Year 3: 20 students
- Year 4: 20 students
- Year 5: 20 students

These figures reflect the proposed degree program's ability to fully utilize Lahey Hospital's simulation labs, operating rooms, and preceptor capacity while maintaining high standards for safety and competency-based assessment.

Impact on Other Middlesex Academic Programs

The proposed degree program is expected to have a positive impact on enrollment across multiple areas of the College, particularly within General Education and foundational science courses. Students completing the first-year requirements will enroll in:

- ENG 101 and ENG 102
- College-level math courses
- BIO 105 – Basic Anatomy & Physiology
- CHE 131 – College Chemistry I
- Behavioral Science and Social Science electives
- Humanities electives (e.g., Bioethics)

These requirements will increase enrollment in Liberal Arts and STEM divisions, helping stabilize and strengthen course offerings already serving large numbers of health sciences students.

Impact on Other Selective Health Programs

Because the program attracts a distinct group of students interested in technical, perioperative, and anesthesia-focused careers, we do not anticipate negative competition with existing health programs such

as Nursing, Dental Hygiene, Radiologic Technology, or Surgical Technology. Instead, the program offers a new pathway that is not currently available at Middlesex or in New England, thereby broadening Middlesex's overall health portfolio and increasing access for students who may not pursue other selective health tracks.

Institutional Impact

The program is aligned with Middlesex's strategic goals to:

- Expand workforce-relevant program pathways
- Strengthen regional employer partnerships
- Increase enrollment across academic divisions
- Improve equitable access to high-wage healthcare careers

Overall, the enrollment projections are realistic, sustainable, and designed to ensure the proposed degree program's long-term viability while enhancing enrollment and stability across the College's academic departments.

Resources and Financial Statement of Estimated Net Impact on Institution

(Form D, Appendices)

Faculty and Staffing Resources:

The proposed degree program has been structured to maximize the employer partnership with Lahey Hospital & Medical Center (LHMC), allowing Middlesex to launch the program with minimal new institutional costs. Because all anesthesia-specific instruction, lab activities, and clinical training occur at LHMC under the supervision of their anesthesia department, Middlesex's primary resource needs relate to coordination and student support rather than facilities or major equipment purchases.

Faculty and Staffing

Instructional Staff (Provided by LHMC)

LHMC will supply:

- Two Program/Clinical Directors (CRNAs) who serve as primary faculty
- Additional instruction and supervision from Anesthesiologists, CRNAs, experienced anesthesia technologists, and simulation staff
- All clinical precepting and clinical site coordination

This significantly reduces Middlesex's need to hire new full-time faculty or clinical coordinators. Coordinators and faculty will receive a stipend from Middlesex for their additional responsibility in the proposed degree program.

Middlesex Staffing Needs

Middlesex will require:

- A modest increase in administrative support for clinical onboarding, student documentation, and program coordination
- Additional capacity in Admissions and Advising, due to selective admissions processing, program-specific applicant screening, and increased planning needs for health pathway students

These demands can be absorbed by existing structures with minor adjustments.

Facilities, Space, and Equipment

LHMC will provide all:

- Simulation labs
- Operating rooms and procedural areas
- Anesthesia machines, monitors, airway equipment, infusion systems, and related supplies

Middlesex does not need to purchase or maintain any specialized anesthesia equipment, representing substantial cost savings.

On-Campus Needs

Middlesex will use existing:

- General education classrooms
- Science labs for BIO 105 and CHE 131
- Tutoring, ACE services, and Student Support resources

No new space or capital improvements are required.

Technology and Online Infrastructure

The proposed degree program will use:

- Middlesex's existing learning management system for hybrid and online instruction
- Trajecsys for clinical competency tracking (modest licensing cost)
- LHMC's high-fidelity simulation equipment and clinical technology

- Faculty will need online course development funds to develop hybrid learning

No new IT infrastructure is needed beyond standard support for online and hybrid courses.

Startup and Ongoing Costs

Startup Costs

- ~\$5,000 in online course development stipends
- Marketing and outreach materials

These are limited, one-time expenses.

Ongoing Costs

- Modest adjunct-level compensation for Middlesex oversight
- Partial administrative support
- Trajecsys onboarding and setup
- Increased demands on Admissions for applicant processing and Advising for selective health pathway guidance

These costs remain manageable and are offset by tuition revenue.

Net Financial Impact

The program is expected to have a positive net financial impact beginning in Year 1.

Key reasons include:

- Minimal capital investment due to LHMC providing equipment, space, and most faculty
- Growing enrollment reaching 20 students per cohort by Year 3
- Increased enrollment in general education and science courses
- Limited operational costs beyond advising, admissions, and administrative support

Overall, the proposed degree program will generate stable tuition revenue while requiring few new expenditures, making it financially sustainable and mission-aligned.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Associate of Science in Anesthesia Technology** program 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

Required (Core) Courses in the Major (Total # courses required = 14)		
Course Number	Course Title	Credit Hours
BIO 105	Basic Anatomy and Physiology	3
ENG 101	English Composition I	3
ENG 102	English Composition II	3
CHE 131	College Chemistry I	4
MAS 101	Medical Terminology	3
ANE 101	Fundamentals of Anesthesia Technology	3
ANE 102	Concepts of Anesthesia Technology	4
ANE 103	Anesthesia Pharmacology	3
ANE 151	Anesthesia Technology Equipment I	4
ANE 152	Anesthesia Technology Practicum I	5
ANE 153	Advanced Concepts of Anesthesia Technology	3
ANE 201	Anesthesia Technology Equipment II	4
ANE 202	Anesthesia Technology Practicum II	5
ANE 203	Anesthesia Technology Capstone	3
	Sub Total Required Credits	50
Elective Courses (Total # courses required = 0) (attach list of choices if needed)		
	Math Elective (MAT 120 or Higher)	3
	Behavioral Science Elective	3
	Social Science Elective	3
	Humanities Elective	3
	Sub Total Elective Credits	12
Distribution of General Education Requirements		# of Gen Ed
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		Credits
Arts and Humanities, including Literature and Foreign Languages		9
<ul style="list-style-type: none"> ENG 101 – English Composition I - 3 credits 		

<ul style="list-style-type: none"> • ENG 102 – English Composition II – 3 credits • Humanities Elective – 3 credits 		
<p>Mathematics and the Natural and Physical Sciences</p> <ul style="list-style-type: none"> • MAT 177 – Statistics – 3 credits • BIO 105 – Basic Anatomy and Physiology – 3 credits • CHE 131 – College Chemistry I – 4 credits 	10	
<p>Social Sciences</p> <ul style="list-style-type: none"> • Social Science Elective – 3 credits • Behavioral Science Elective – 3 credits 	6	
Sub Total General Education Credits		25
Curriculum Summary		
Total number of courses required for the degree	18	
Total credit hours required for degree	62	
<p>Prerequisite, Concentration or Other Requirements: Eligibility for English Composition I and College Level Math</p> <p>Eligibility for ENG 101-English Composition I and College Level Math</p> <p>Cumulative GPA of 2.5, attendance at an Anesthesia Technology Information Session</p> <p>Minimum age of 18 years old</p> <p>High School Diploma or equivalent</p>		

Form B: LOI Goals and Objectives

Program Goal	Measurable Learning Objectives (Aligned to PSLOs)	Strategies for Achievement	Timetable
1. Ensure graduates demonstrate proficiency in anesthesia equipment preparation, operation, troubleshooting, and maintenance.	<ul style="list-style-type: none"> • Students perform safe equipment setup, checks, and maintenance. • Troubleshoot and respond to equipment malfunctions. <i>(PSLO 1)</i> 	<ul style="list-style-type: none"> • Simulation labs at LHMC on anesthesia machines, monitoring devices, and OR equipment. • Equipment-focused courses (ANE 151, ANE 201). • Clinical practicum under CRNA/Anesthesiologist supervision. 	Semesters 3–5
2. Build strong foundational knowledge of anatomy, physiology, pharmacology, and monitoring to support safe anesthesia care.	<ul style="list-style-type: none"> • Apply foundational science knowledge to anesthesia care. • Interpret monitoring data and support diverse patient scenarios. <i>(PSLO 2)</i> 	<ul style="list-style-type: none"> • Didactic courses ANE 101–103; supporting sciences (BIO 105, CHE 131). • Case-based instruction and simulation scenarios. • Clinical rotations observing and assisting with patient monitoring. 	Semesters 1–5
3. Ensure graduates integrate infection control, aseptic technique, and regulatory standards into all aspects of practice.	<ul style="list-style-type: none"> • Demonstrate proper aseptic technique. • Follow infection-control procedures and regulatory guidelines. <i>(PSLO 3)</i> 	<ul style="list-style-type: none"> • Simulation scenarios involving aseptic setup and equipment handling. • Instruction on regulatory compliance and safety standards. • Evaluation during clinical practicum. 	Integrated throughout all semesters
4. Promote professional communication, teamwork, and ethical behavior within the anesthesia care team.	<ul style="list-style-type: none"> • Communicate effectively with anesthesia, surgical, and nursing staff. • Demonstrate professional and ethical behavior. <i>(PSLO 4)</i> 	<ul style="list-style-type: none"> • Daily interactions in OR and procedural areas at LHMC. • Professionalism competencies assessed in Trajecsys. • Interprofessional learning opportunities. 	Assessed each semester; summative evaluation in Semester 5
5. Develop critical thinking and problem-solving skills to respond to evolving clinical conditions.	<ul style="list-style-type: none"> • Apply critical thinking to equipment issues and patient care. • Respond appropriately in routine and emergent situations. <i>(PSLO 5)</i> 	<ul style="list-style-type: none"> • High-fidelity simulation drills. • Increasingly independent responsibilities in clinical practicums. • Capstone case analyses in ANE 203. 	Semesters 3–5, with capstone emphasis in Semester 5
6. Ensure graduates demonstrate cultural	<ul style="list-style-type: none"> • Provide culturally respectful, patient-centered care. • 	<ul style="list-style-type: none"> • Ethics and communication content in ANE and general education courses. • Simulation 	Integrated throughout the program;

competence, respect for patient dignity, and ethical practice.	Demonstrate awareness of diverse patient needs. <i>(PSLO 6)</i>	scenarios involving diverse patient backgrounds. • Evaluation during clinical rotations.	assessed each rotation
7. Prepare graduates for national certification eligibility (Cer.A.T.T.) and entry-level employment.	<ul style="list-style-type: none"> • Meet all CAAHEP/CoA-ATE cognitive, psychomotor, and affective competencies. • Demonstrate preparedness for certification. <i>(PSLO 7)</i> 	<ul style="list-style-type: none"> • Curriculum aligned to National Standard Curriculum. • Exam review integrated into ANE 203 Capstone. • Advisory input used to update curriculum. 	Certification preparation in Semesters 4–5; competencies completed by program end

Form C: LOI Program Enrollment

	Year 1	Year 2	Year 3	Year 4	Year 5
New Full-Time	12	15	20	20	20
Continuing Full-Time	0	10	13	17	17
New Part-Time					
Continuing Part-Time					
Enrollment Totals	12	25	33	37	37

Form D: LOI Program Budget

One Time/ Start Up Costs		Annual Expenses				
		Year 1	Year 2	Year 3	Year 4	Year 5
	Cost Categories					
	Full Time Faculty <i>(Salary & Fringe)</i>	\$0	\$0	\$0	\$0	\$0
	Part Time/Adjunct Faculty <i>(Salary & Fringe)</i>	\$40,800	\$41,616	\$42,448	\$43,297	\$44,163
	Coordinator and Faculty stipends	\$35,000	\$35,000	\$35,000	\$35,000	\$35,000
	Staff	\$0	\$0	\$0	\$0	\$0
	Professional Development (Conference and Travel)	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
	General Administrative Costs	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
	Instructional Materials, Library Acquisitions	\$0	\$0	\$0	\$0	\$0
	Facilities/Space/Equipment	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Field & Clinical Resources	\$0	\$0	\$0	\$0	\$0
	Marketing	\$2,500	\$2,000	\$1,500	\$1,000	\$500
	Startup Accreditation Fees	\$3,500	\$0	\$0	\$0	\$0
	Annual Accreditation Fees	\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
	Trajecsys	\$2,250	\$2,250	\$2,250	\$2,250	\$2,250
	Expenses Total	\$100,050	\$96,866	\$97,198	\$97,547	\$97,913

One Time/Start-Up Support		Annual Income				
		Revenue Sources	Year 1	Year 2	Year 3	Year 4
	Grants (Anesthesia Tech Program Dev)	\$20,000	\$10,000	\$0	\$0	\$0
	Director Stipend Provision	\$0	\$20,000	\$0	\$0	\$0
	Flex Funds	\$0	\$9,500	\$0	\$0	\$0
	Tuition	\$10,944	\$20,592	\$26,880	\$29,760	\$29,760
	Fees	\$118,488	\$249,482	\$330,930	\$380,210	\$387,814
	Departmental	\$0	\$0	\$0	\$0	\$0
	Reallocated Funds	\$0	\$0	\$0	\$0	\$0
	Other (specify)	\$0	\$0	\$0	\$0	\$0
	Income Total	\$149,432	\$309,574	\$357,810	\$409,970	\$417,574