

BOARD OF HIGHER EDUCATION

REQUEST FOR BOARD ACTION

NO: BHE 20-27

BOARD DATE: June 23, 2020

APPROVAL OF LETTER OF INTENT OF MASSACHUSETTS BAY COMMUNITY COLLEGE TO AWARD THE ASSOCIATE IN SCIENCE IN SURGICAL TECHNOLOGY AND AUTHORIZATION FOR FAST TRACK REVIEW

MOVED: The Board of Higher Education has evaluated the Letter of Intent of **Massachusetts Bay Community College** to award the **Associate in Science in Surgical 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 BHE 6/23/2020.

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

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

BOARD OF HIGHER EDUCATION
June 2020
Massachusetts Bay Community College
Letter of Intent
Associate in Science in Surgical Technology

DEGREE TITLE ABSTRACT ON INTENT AND MISSION OF PROGRAM

Massachusetts Bay Community College (MBCC) plans that the proposed Associate in Surgical Technology program will be well aligned with its' mission to foster educational excellence and student success, prepare students for local and global citizenship, anticipate and respond to the needs of surrounding communities, and contribute to evolving regional economic development.

MBCC intends that the proposed program will build upon the existing Surgical Technology Certificate program to comply with the March 2019 national *Accreditation Review Committee on Education in Surgical Technology and Surgical Assisting* standards for Surgical Technology, which were changed to require programs to provide students with the minimum of an Associate Degree by August 1, 2021. The Association of Surgical Technologists holds the Associate degree as the preferred qualification for entry-level positions. It is intended that the proposed MBCC program will be offered on the Framingham campus, and graduates will be prepared to work in the profession as part of a healthcare team. It is further intended that graduates will be eligible to take the national Certified Surgical Technologist (CST) exam.

The proposed program has obtained all necessary governance approvals and was approved by the MBCC Board of Trustees on January 17, 2020. The LOI was circulated on April 13, 2020. 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 program's goals align with MBCC's Equity Agenda to close achievement gaps. The program provides students who complete the MBCC Central Processing Technology certificate program, preferential admission eligibility and a stackable credential option toward the associate degree. In Fall 2019, 100% of these students were from traditionally underrepresented populations. Similarly, students who have completed the Certificate in Surgical Technology will be able to apply academic credits toward degree completion in the proposed program. It is planned that the program will be included in the MBCC *Health Sciences Academy* as part of the guided pathways implementation initiatives. Students in the Academy receive focused guidance and support throughout their college experience, from the recruitment and admissions process to graduation and employment. The program will provide opportunities for students to connect with alumni mentors, especially those from underrepresented populations.

Program or Department Supports to Ensure Student Retention and Completion

MBCC expects to ensure student retention and completion through instruction and advising, financial supports, academic tutoring, and whole-student development supports. For example, the program chair will teach 100% of the didactic coursework allowing for consistency in instruction. The full-time clinical coordinator will visit and evaluate students weekly at the clinical affiliate operating rooms, maintaining close contact with hospital educators to ensure a high-quality clinical experience. Faculty advisors will meet with students each semester to ensure progress. Financial supports are designed through MBCC’s Health Sciences Scholarship and One Family Scholar opportunities. The Academic Achievement Center employs professional learning specialists and peer tutors and online tutoring is also planned to be available for many subjects. Whole-student development supports will be accessible through MBCC’s community partners including a frozen meal program, free healthy snacks, the *Student Hunger Assistance Fund* and a *Food for Thought* program, which feeds students studying on campus.

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

MBCC currently has clinical partnerships/affiliation agreements with over 20 medical facilities and surgery centers throughout Massachusetts, providing students with the direct surgical patient care experiences required of an accredited program. MBCC reports that many graduates have been offered employment at the same facilities where they completed clinicals. years earlier. Below MBCC provided a listing of current partnerships:

Medical Facility Affiliations Agreements	Location
Beth Israel Deaconess Hospitals	Boston, Needham, Milton, Plymouth
Beth Israel - Lahey Medical Center	Burlington
Boston Medical Center	Boston
Harrington Hospital	Southbridge
Health Alliance Hospital	Leominster
Heywood Hospital	Gardner
Lowell General Hospital	Lowell
New England Baptist Hospital	Boston
Partners Healthcare-Massachusetts General Hospital	Boston
Partners Healthcare-Brigham and Women’s Hospital	Boston, Foxboro
Partners Healthcare -Newton Wellesley Hospital	Newton, Wellesley Hills
Partners Healthcare-Mass Eye and Ear Infirmary	Boston
Steward Norwood Hospital	Norwood
Steward Saint Elizabeth Medical Center	Brighton
Steward Good Samaritan Medical Center	Brockton
Sturdy Memorial Hospital	Attleboro

Tenet Healthcare-MetroWest Medical Center	Framingham
Tenet Healthcare- Saint Vincent Hospital	Worcester
The Surgery Center	Shrewsbury
UMass Memorial Healthcare - University of Massachusetts Hospital	Worcester
UMass Memorial Healthcare-Marlborough Hospital	Marlborough

The Surgical Technology Program Advisory Committee (PAC) was formed in December, 2014 in support of the existing certificate program. The composition of the Committee is defined by the Accreditation Review Committee on Education in Surgical Technology and Surgical Assisting (ARC/STSA) accrediting agency. Members include MBCC administration, faculty from the STEM Division as well as from the Surgical Technology program, a current student, a recent graduate, the medical director¹, an employer, and an at-large public member. The PAC is expected to offer guidance regarding the curriculum, program changes, equipment needs, employment outcomes, graduate outcomes, pass rates, and clinical site needs or opportunities. The PAC contributed to the development of the proposed degree. The STEM Division faculty representative helped to refine the science requirements. The employer member promoted the idea of adding central processing to the curriculum because of the advancement of central processing/sterile supply in the hospitals and the increasing need for this skill set (a stackable central processing credential is embedded into the curriculum).

Relationship to MassHire Regional Blueprints

MBCC reports that the priority occupational groups identified in the Greater Boston Workforce Planning Blueprint² include health technologists and technicians. Surgical technologists fall within this group of priority occupations. MBCC finds that surgical technologists are among the fastest growing occupations in the region for 2016-2026. MBCC also finds that the Massachusetts Executive Office of Labor and Workforce Development projects 14.97% growth in the region for this occupation (2016)³. A Burning Glass report⁴ indicated that projected employment growth for 2019-2028 was 8.40%. MBCC expects that, as the associate degree becomes the minimum degree completion for this profession, the workforce demands for more highly skilled surgical technologists will likely increase. MBCC further expects that graduates of the proposed program will be able to advance their careers by specializing within the field or entering related fields. Graduates can choose work in administrative positions or managing the central supply departments of medical facilities. Surgical technologists may also seek positions with insurance companies as insurance claim field experts. Experienced surgical technologists

¹ *The MBCC medical director is a retired surgeon, who spends significant time in the skills/mock labs weekly to provide realism to the surgical environment. The medical director provides an extensive anatomy and physiology review in the final semester to better prepare students for the national certification exam and provides small group study sessions.*

² *May 31, 2018 Revised*

³ *Retrieved February 2020 f http://lmi2.detma.org/Lmi/Occupation_Projection_Rank.asp?Area=15000011long.*

⁴ *Burning Glass Program Insight Report October 11, 2019*

may work in medical equipment product development or quality control, arrange shipments of supplies to facilities or market surgical products to new clients as a medical sales representative.

Duplication

North Shore Community College currently offers a 60-credit associate degree in surgical technology. This is a daytime program completed in three semesters plus two eight-week summer sessions. Students are accepted for fall entry and of the 60 program credits, 17 are general education credits and 43 credits are surgical technology core courses. The program includes a clinical externship in the final semester.

The proposed MBCC program is planned to mirror the current certificate program's success by providing evening courses, with 30/31 general education credits and 32 surgical technology credits. The proposed program will include 2 clinical externships in year 2. The proposed MBCC program will also include a stackable certificate in central processing / sterile supply, providing students the opportunity to take the national certifying exam for Certified Registered Central Service Technician (CRCST) through the International Association of Healthcare Central Service Materiel Management (IAHCSMM).

Innovative Approaches to Teaching and Learning

MBCC expects that the proposed program will incorporate a variety of digital and experiential approaches. Students will be evaluated on their clinical skills during placements. It is planned that students will observe real surgeries through videos prepared by the Journal of Medical Insight's virtual operating theatre⁵. Students will prepare for their Certified Surgical Technologist (CST) Exam using a self-paced, online Medical Terminology and Certified Surgical Technologist exam review platform. Students will work with relative independence through the exam prep modules while their progress is monitored by the course faculty.

MBCC simulation lab will be accessible in collaboration with the Paramedicine Program and the Coordinator of the Simulation Center. Twice a year the Division of Health Sciences Simulation Center sponsors a disaster drill. This is a multi-disciplinary exercise during which the surgical technology students work with nursing, paramedicine, and radiologic technology students, along with community fire rescue crews, to simulate response to a mass casualty event. These realistic exercises test students' trauma surgery skills and continue their interdisciplinary skill building.

The surgical technology program will utilize a mock laboratory, featuring two fully stocked operating rooms and a laparoscopic setup. The mock operating room is equipped with everything a student will encounter in hospital operating rooms, including a combination of

⁵ (<https://jomi.com/explain>). *The goal of JOMI is to improve healthcare by creating a window into the practice of the best surgeons around the world.*

traditional instruments and minimally-invasive, camera-based surgical equipment and computer displays.

It is anticipated that MBCC students will complete 920 clinical hours spread over 4 semesters. The clinical experience will provide one-to-one mentoring with a certified surgical technologist and a certified central processing technologist at the clinical partner facilities.

B. ALIGNMENT WITH CAMPUS STRATEGIC PLAN AND MISSION

Priority Rationale and Support of Strategic Plan and Overall Mission of Institution

In addition to the national accreditation mandate, the program supports MBCC's approved 2018-2022 strategic plan's Goal 8: *Refine curriculum to meet employer needs and occupational projections*. The current Surgical Technology certificate has been offered since 1992, and the proposed associate degree program builds on that success by addressing the evolving needs of employers and job seekers in the region. MBCC plans that students will be well-prepared for clinical rotation practice and employment. The proposed program will be housed in the new MBCC Health Sciences Center building in Framingham, scheduled to open in 2023.

Overall Goals, Learning Objectives, Outcomes Evaluation (see Form B Appendices)

MBCC expects that upon completion, graduates will demonstrate the ability to comprehend, apply, and evaluate theoretical information and clinical practice skills needed to be a successful patient care provider in the field of surgical technology. It is also planned that graduates will be eligible to sit for the national Certified Surgical Technologist (CST) Examination and be well-prepared to earn this qualification.

C. ALIGNMENT WITH OPERATIONAL AND FINANCIAL OBJECTIVES OF INSTITUTION

Enrollment Projections (see Form C Appendices)

It is anticipated that because the existing Central Processing certificate program is to be embedded within the A.S. in Surgical Technology, MBCC will see increased enrollment in the certificate program. Similarly, an increase in medical terminology course enrollments is expected as the proposed program will require those courses as a pre-requisite. The proposed A.S. in Surgical Technology will require lab-based anatomy and physiology courses, which are not included in the current certificate program. The lab-based courses will better prepare students to pass the national certifying exam.

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

MBCC does not anticipate needing additional faculty, staff, space, or equipment to deliver the proposed program. The existing two full-time surgical technology faculty and four adjunct faculty will teach the surgical technology and central processing courses in the current facility.

STAFF REVIEW AND VALIDATION

Staff thoroughly reviewed the **LOI** proposing full degree granting authority for the **Associate in Science in Surgical Technology** submitted by **Massachusetts Bay 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

A.S. Surgical Technology

Required (Core) Courses in the Major (Total # courses required = 10)		
<i>Course Number</i>	<i>Course Title</i>	<i>Credit Hours</i>
CY 101	Central Processing I (Lecture/Lab)	2
SX 100	Fundamentals of Surgical Technology	3
CY 102	Central Processing II Lecture/Clinical	2
SX106	Perioperative Patient Care & Aseptic Technique Lab I	4
SX 107	Surgical Procedures I	3
SX116	Perioperative Patient Care & Aseptic Technique Lab II	4
SX 117	Surgical Procedures II	3
SX200	Clinical Experience I	4
SX220	Seminar in Surgery	3
SX210	Clinical Experience II	4
	Sub Total Required Credits	32
Elective Courses (Total # courses required = 0) (attach list of choices if needed)		
	Sub Total Elective Credits	0
Distribution of General Education Requirements		# of Gen Ed Credits
Attach List of General Education Offerings (Course Numbers, Titles, and Credits)		
Arts and Humanities, including Literature and Foreign Languages 1) CT100 Critical Thinking – 3 credits 2) EN101 Freshman English I – 3 credits 3) EN102 Freshman English II – 3 credits		9
Mathematics and the Natural and Physical Sciences 1) BI215 Anatomy and Physiology I w/Lab – 4 credits 2) BI217 Anatomy and Physiology II w/Lab – 4 credits 3) BI223 Fundamentals of Microbiology w/Lab – 4 credits 4) CS100 Computers and Technology – 3 credits 5) Math elective: MA102/MA104/MA105/MA106/MA200 – 3/4 credits		18/19
Social Sciences 1) PS101 Introduction to Psychology – 3 credits		3
Sub Total General Education Credits		30/31
Curriculum Summary		
Total number of courses required for the degree		19
Total credit hours required for degree		62/63
Prerequisite, Concentration or Other Requirements:		
BI 101 General Biology I w/ Lab and HL103 Medical Terminology = 7 credits		

Form B: Program Goals and Objectives

Goal	Measurable Objective	Strategy for Achievement	Timetable
Cognitive Skills			
Apply the knowledge of anatomy, physiology, microbiology, and pharmacology to the care of the perioperative patient as it relates to the role of the Surgical Technologist.	Passing Anatomy and Physiology I and II and Microbiology and Fundamentals of Surgical Technology	Completion of BI215 Anatomy & Physiology I w/ Lab, BI217 Anatomy & Physiology II w/ Lab and BI 223 Fundamentals of Microbiology	Completion of Semester 2 and Completion of Semester 4
Utilize knowledge and skills to attend to the physical, psychological and social needs of the patient.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5
Qualify to sit for the NBSTSA Certification Exam.	Passing Clinical I and II and Seminar in Surgery	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Graduation
Demonstrate recognition of the need for continuing education to enhance their professional and personal growth to keep up with technological advances in medicine.	Passing Fundamentals of Surgical Technology	Completion of SX100 Fundamentals of Surgical Technology	Completion of Semester 1
Apply medical terminology to communicate clearly and effectively with patients, families, physicians and co-workers.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical	Completion of Semester 5

		Experience II	
Psychomotor Skills			
Demonstrate perioperative technical skills and knowledge in a safe and effective manner.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5
Exhibit safe practice methods involving preparation routines of the intraoperative environment, patient positioning and emergency procedures.	Passing perioperative Patient Care and Asepsis Lab and Clinical I and II	Completion of SX106 Perioperative Patient Care & Aseptic Technique Lab I and SX116 Perioperative Patient Care & Aseptic Technique Lab II	Completion of Summer Semester 3
Display and incorporate aseptic principles in the intraoperative setting.	Passing Perioperative Patient Care and Asepsis Lab and Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II and Completion of SX106 Perioperative Patient Care & Aseptic Technique Lab I and SX116 Perioperative Patient Care & Aseptic Technique Lab II	Completion of Semester 5
Actively participate in the scrub role in a variety of procedures in surgical specialty areas according to hospital policy.	Passing Perioperative Patient Care and Asepsis Lab and Clinical I	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5

	and II	and Completion of SX106 Perioperative Patient Care & Aseptic Technique Lab I and SX116 Perioperative Patient Care & Aseptic Technique Lab II	
Maintain a grade of 75% or better in all courses in the program.	Passing all course in the Surgical Technology Program	Completion of Surgical Technology Program	Graduation
Affective Domain			
Attain comprehensive ethical, legal, moral and cultural awareness as they relate to the surgical technologist's ability to provide patient care and how this awareness fosters cooperation and success among member of the surgical team.	Passing Fundamentals of Surgical Technology	Completion of SX100 Fundamentals of Surgical Technology	Completion of Semester 1
Shows the importance of and the ability to model the professional attributes of the Surgical Technologist including the maintenance of a strict 'surgical conscience.'	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5
Practices dependability, honesty and integrity in clinical practice.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5

Utilize critical thinking to perform the duties of the surgical technologist.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5
Demonstrate accountability in their practice based on current knowledge.	Passing Clinical I and II	Completion of SX200 Clinical Experience I and SX210 Clinical Experience II	Completion of Semester 5

Form C: LOI Program Enrollment

	Year 1 Day Track	Year 2 Evening Track	Year 3 Day Track	Year 4 Evening Track	Year 5 Day Track
New Full-Time	15	16	17	18	20
Continuing Full-Time	0	13	14	15	16
New Part-Time	NA	NA	NA	NA	NA
Continuing Part-Time	NA	NA	NA	NA	NA
Totals	15	29	31	33	36

Form D: LOI Program Budget

One Time/ Start Up Costs		Annual Enrollment				
	Cost Categories	Year 1	Year 2	Year 3	Year 4	Year 5
	Full Time Faculty (Salary & Fringe) 2% annual increase	\$189,672	\$194,179	\$198,791	\$203,510	\$208,337
	Part Time/Adjunct Faculty (Salary & Fringe) 2% annual increase	\$20,486	\$20,536	\$20,586	\$20,636	\$20,686
	Staff (Lab Assistant)	\$5,200	\$5,200	\$5,304	\$5,304	\$5,410
	General Administrative Costs (Advisory Committee, Pinning Ceremony, Catering Programmatic Events)	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000
	Instructional Materials, Library Acquisitions	\$4,500	\$4,500	\$5,500	\$5,500	\$6,500
	Lab Supplies	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000
	Facilities/Space/ Equipment	NA	NA	NA	NA	NA
	Field & Clinical Resources – Mileage Student Clinical Observations	\$5,000	\$5,500	\$6,000	\$6,500	\$7,000
	Marketing	\$2,000	\$1,500	\$1,000	\$500	\$500

	Other (Accreditation Fees- CAAHEP and ARC/STSA)	\$2275	\$2500	\$2725	\$2950	\$3175
	Medical Advisor	\$10000	\$10000	\$12000	\$12000	\$12000
	Conference Travel, Trainings, Registrations	\$6900	\$7900	\$8900	\$9900	\$10,900
One Time/Start- Up Support			Annual Income			
	Revenue Sources	Year 1 Fa20- Su21	Year 2 Fa21- Su22	Year 3 Fa 22- Su-23	Year 4 Fa23- Su24	Year 5 Fa24-Su25
	Grants	0	0	0	0	0
	Tuition	\$16,200	\$26,016	\$27,768	\$29,520	\$32,352
	Fees	\$156,000	\$248,326	\$265,028	\$281,730	\$308,832
	Reallocated Funds	NA	NA	NA	NA	NA
	Other (specify)	NA	NA	NA	NA	NA
	TOTALS	\$172,200	\$274,342	\$292,796	\$311,250	\$341,184