

**Proposal for BS in Health Science / Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology Dual Degree Program**

**Faculty Senate Reading:**

**Full Name of Current Program:** Bachelor of Science in Health Science; Associate in Applied Science

**Stockton Program Acronym:** HLTH; MLT

**Degree/Level of Current Program:** BS, Associate

**CIP Codes:** 51.0000 (Health Services/Health Science, General)/51.1005 (Clinical Laboratory Science)

**Names and signatures of Faculty Proposing New Option:**

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**Date of Program Faculty Votes to Approved the Proposed New Option**

**Text Description of Proposed New Option**

This proposal describes a dual degree curriculum that would enable students to earn a Bachelor of Science (B.S.) in Health Science degree and an Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology. This dual degree will allow the graduates to sit for the Medical Laboratory Scientist (MLS) certification, which is a higher certification than the Medical Laboratory Technician (MLT) certification students can obtain with the associate degree. This dual-degree program is established under N.J Statute § 18A:62-46.1, Collective Statewide Reverse Transfer Agreement, which authorizes individual agreements between institutions of higher education and county colleges.

The proposal provides the rationale for this dual degree, and it outlines the process by which an undergraduate student, who matriculates into this dual degree, would complete the first three years in the BS in Health Science, and then transfer to the Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology to complete the senior year. During the senior year, students will take the Clinical Laboratory Courses at Mercer County Community College (MCCC). Upon completion of the coursework at MCCC, Mercer County Community College will take the introductory courses students took at Stockton (32 credits) and graduate the student with the Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology.

Similarly, Stockton will take the Clinical Laboratory courses (31 credits) and graduate the students with a Bachelor of Science in Health Science.

It is important to note that an articulation agreement between Stockton University and Mercer County Community College (MCCC) for this concentration was signed by Dr. Kesselman in December 2021. This proposal updates the curriculum of the original articulation, which lists courses with prerequisites that do not fit the curriculum of the concentration, rendering the curriculum unworkable; everything else in the articulation remains the same. It is also important to note that this proposal is being submitted so the regular order to create new programs and concentrations is followed.

Per the 12/23/2020 Memorandum of Agreement for Interdisciplinary Minors, Dual-Degree Programs, and Pre-Professional Coordinators, this dual-degree program will require a Coordinator. This new concentration will require sits on Biology and Chemistry courses BSHS students do not traditionally take. However, future demands on these programs were discussed with the respective programs and with NAMS officials. Agreements such as putting certain courses on specific semesters to minimize demand, and capping admission if necessary were reached. Implementation of the proposed dual degree program requires no other additional Stockton University resources (i.e., library, ITS, new faculty lines). While not foreseen now, future evaluation of this program will indicate if new resources will be needed.

**Date of Dean's Council Review:**

**Date of Faculty Senate Committee on Academic Programs and Planning Review:**

**Date of Provosts' Council Review:**

**Date of Faculty Senate Review:**

## **I. Admission and Eligibility Requirements**

Students may apply to the B.S./ Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology Dual Degree as freshmen or as transfer students if they meet the requirements to take MATH 1100 (Pre-Calculus). Students already in the B.S. program may enter the dual program at any time if they meet the requirements for MATH 1100 (Pre-Calculus). Once enrolled, to maintain accepted status in the dual degree program, all students must maintain a GPA of 2.5 or higher.

## II. Dual Degree Curriculum

### A. BS in Health Science Required Courses (41 credits)

- HLTH 1101: Introduction to Health Sciences
- HLTH 1241: Medical Terminology
- HLTH 2305: Statistics for Health Professionals
- HLTH 2411: Informatics for the Health Sciences
- HLTH 2501: Ethics and Teamwork in Health Care
- HLTH 3411: Writing and Editing for the Health Sciences
- HLTH 4200: Research for the Health Sciences
- CHEM 2110/15: Chemistry I/Chemistry Lab I
- BIOL 1260: Anatomy & Physiology I w/Lab & BIOL 2260: Anatomy & Physiology II w/Lab
  - or BIOL 2180: Human Anatomy w/ Lab & BIOL 2150: Principles of Physiology w/ Lab

### B. Required Electives (Cognates)

Students in the BSHS/Laboratory Sciences Dual Degree Concentration must complete the following cognates (26 credits):

- BIOL 1200/1205: Cells & Molecules and Lab
- MATH 1100: Pre-Calculus
- CHEM 2120/2125: Chem II – Organic Structures and Lab
- CHEM 2140/2145: Chem IV – Theory and Application
- BIOL 3020: Microbiology for the Life Sciences
- CHEM 3250: Biochemistry

Students in the BSHS/Laboratory Sciences Dual Degree Concentration must take the following Six Laboratory Science courses at Mercer County Community College (MCCC), which will count as a GNM<sup>1</sup>, Lower-Level Cognate<sup>2</sup>, and At Some Distance (ASD)<sup>3</sup> in the BSHS program (31 credits):

- MLT 112: Intro to Medical Lab Technology<sup>1</sup>
- MLT 200: Clinical Chemistry<sup>2</sup>
- MLT 207: Clinical Immunohematology<sup>2</sup>
- MLT 212: Clinical Hematology<sup>2</sup>
- MLT 214: Clinical Microbiology<sup>3</sup>
- MLT 215: Clinical Practice<sup>3</sup>

### C. General Studies and At Some Distance (ASD) Courses (28 credits)

Students in the BSHS/Laboratory Science Dual Degree Concentration must complete another 28 credits in General Studies courses.

### D. Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology (64 credits)

The Laboratory Sciences curriculum requires 64 credits. Dual Degree students may begin taking Laboratory Sciences courses in year four of their undergraduate education, once they meet the eligibility requirements outlined previously.

**The following are the core courses for the Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology, which dual degree students will take at MCCC (31 credits)**

- MLT 112: Intro to Medical Lab Technology
- MLT 200: Clinical Chemistry
- MLT 207: Clinical Immunohematology
- MLT 212: Clinical Hematology
- MLT 214: Clinical Microbiology
- MLT 215: Clinical Practice

**Cognates in the A.A.S. degree in Medical Laboratory Technology (33 credits)**

The Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology program will take up to 31 credits from the Bachelor of Science in Health Science (BSHS) program to complete the 64 credits necessary to graduate students with the Associate Degree.

Table 1. Curricular Map for BS/Laboratory Sciences Dual Degree Concentration

FIRST YEAR - FALL	Credit	FIRST YEAR - SPRING	Credit
<b>Course load</b>	<b>17</b>	<b>Course load</b>	<b>17</b>
<b>Subject:</b> FRST, GAH, GEN, GNM, or GSS <b>Optional Attribute:</b> Freshman Seminar	<b>4</b>	<b>Subject:</b> GEN 2240 or GSS 2121 (Suggested W1) <b>Attribute:</b> W1	<b>4</b>
BIOL 1200/1205 - Cells & Molecules	<b>4+1</b>	CHEM 2110/15 – Chemistry I/Chem I Lab (Q2)	<b>4+1</b>
HLTH 1101 – Introduction to Health Sciences	<b>4</b>	HLTH 1241 – Medical Terminology for Health	<b>4</b>
MATH 1100 - Pre-Calculus (Q1)	<b>4</b>	PSYC 1100 - Intro to Psychology	<b>4</b>

SECOND YEAR - FALL	Credit	SECOND YEAR - SPRING	Credit
<b>Course load</b>	<b>17</b>	<b>Course load</b>	<b>16</b>
<b>Subject:</b> GAH, GEN, GNM, GSS <b>Attribute:</b> W2, A, H, I, and/or R	<b>4</b>	<b>Subject:</b> GAH, GEN, GNM, GSS <b>Attribute:</b> W2, A, H, I, and/or R	<b>4</b>
BIOL 1260 – Anatomy & Physiology for Health Sc I	<b>4</b>	BIOL 2260 – Anatomy & Physiology for Health Sc II	<b>4</b>
CHEM 2120/2125: CHEM II (Q2)	<b>4+1</b>	HLTH 2411 – Informatics for the Health Sciences	<b>4</b>
HLTH 2305 – Statistics for Health Science (Q1)	<b>4</b>	HLTH 2501 – Ethics & Teamwork in Healthcare (V)	<b>4</b>

THIRD YEAR - FALL	Credit	THIRD YEAR - SPRING	Credit
<b>Course load</b>	<b>16</b>	<b>Course load</b>	<b>16</b>
<b>Subject:</b> GAH, GEN, GNM, GSS <b>Attribute:</b> W2, A, H, I, and/or R	<b>4</b>	<b>Subject:</b> GAH, GEN, GNM, GSS <b>Attribute:</b> W2, A, H, I, and/or R	<b>4</b>
CHEM 3250 – Biochemistry	<b>4</b>	<b>Subject:</b> GIS <b>Attribute:</b> W2, A, H, I, and/or R	<b>4</b>
BIOL 3020 – Microbiology for Health Sciences	<b>4</b>	CHEM 2140 - Chem IV: Theory and Application	<b>4</b>
HLTH 3411 – Writing and Editing for the HS (W1)	<b>4</b>	HLTH 4200 – Research for the H.S. (W2/Q2)	<b>4</b>

Note: All Stockton courses must be passed before transferring to MCCC.

FOURTH YEAR - FALL	Credit	FOURTH YEAR - SPRING	Credit
<b>Course load (Transfer Equivalency)</b>	<b>15</b>	<b>Course load (Transfer Equivalency)</b>	<b>16</b>
MLT 112-Intro to Medical Lab Technology <sup>1</sup>	<b>3</b>	MLT 214-Clinical Microbiology <sup>3</sup>	<b>6</b>
MLT 200-Clinical Chemistry <sup>3</sup>	<b>4</b>	MLT 215-Clinical Practice <sup>2</sup>	<b>10</b>
MLT 207-Clinical Immunohematology <sup>3</sup>	<b>4</b>		
MLT 212-Clinical Hematology <sup>3</sup>	<b>4</b>		

<sup>1</sup> GNM; <sup>2</sup> Lower-Cognate; <sup>3</sup> At Some Distance (ASD)

### III. BSHS/MLT Program Vision, Mission, Philosophy, Goals, SLO, and ELO Alignment

The Bachelor of Science in Health Science Degree (BSHS) is philosophically aligned with the missions and strategic plans of the University and the School of Health Sciences. Students in the BSHS Program develop the skills needed for the continuous learning and critical thinking that are required throughout the rapidly changing healthcare industry.

#### ***Bachelor of Science in Health Science (BSHS)***

- A. Vision:** To become the regional academic model for pre-health professional education and to inspire the practice of interprofessional collaboration and clinical excellence across the learning continuum.
- B. Mission:** The mission of the BSHS Program is to provide a quality, contemporary, pre-health professional education for students who desire careers in the healthcare system. The curricular underpinning provided by the Core Competencies for Interprofessional Collaborative Practice<sup>1</sup> provides the foundational learning continuum for interprofessional competency development across the healthcare professions and the lifelong learning trajectory.
- C. Philosophy:** The BSHS Program supports the development of critical thinking, communication, and interpersonal skills; the development and integration of personal, and professional, values and ethics; and the development of a deep understanding of healthcare provider roles and responsibilities. Each student is a unique person with differing value systems, motivations, life experiences, and knowledge. Students are supported in the development of individualized educational goals and are held accountable for meeting them. The faculty of the BSHS Program aspires to operationalize the Program philosophy through the creation of learning environments where the principles of Interprofessional Education (IPE) are fostered. The faculty believes that successful learning is a shared experience and that students must be committed, active participants in the educational process.
- D. Program Goals:** The primary goal of the BSHS Program is to prepare graduates for a range of career options, from entry-level positions in the healthcare field to entry into graduate or professional programs leading to identified careers. Graduates will contribute to optimal healthcare outcomes as they participate in meeting society's 21<sup>st</sup>-century healthcare needs.

The BSHS Program courses are built upon four major IPE programmatic themes, namely: Values/Ethics, Roles/Responsibilities, Communication, and Teams/Teamwork<sup>1</sup>. In addition, the concepts of integrative health and wellness are utilized throughout the program to link and operationalize the IPE themes. These themes conceptually synthesize the progression of program outcomes throughout the BSHS curriculum. Program outcomes are congruent with the themes presented in the *Core Competencies of Interprofessional Collaborative Practice*<sup>1</sup>. From these core themes/competencies the following desired principles are integrated throughout the program, they include:

1. Patient/family centered.
2. Community/population oriented.
3. Relationship focused.
4. Process-oriented.
5. Able to integrate across the learning continuum.
6. Sensitive to systems context/applicable across practice settings.
7. Applicable across professions.
8. Stated in a language common and meaningful across professions.
9. Outcome driven.
10. Linked to learning activities and educational strategies appropriate to the learner.

**E. Program Student's Learning Outcomes:**

At the completion of the BSHS Program, students will be able to:

1. Analyze the impact the Core Competencies for Interprofessional Collaborative Practice (IPCP) have on health care.
2. Describe integrative health and wellness practices.
3. Analyze the U.S. Healthcare System and its impact on healthcare access, quality, and outcomes.
4. Evaluate the influence of values and ethics on healthcare practice and research.
5. Demonstrate the ability to locate, critically evaluate, analyze, and use information to solve problems or to produce an argument.
6. Demonstrate effective oral and written communication skills.
7. Demonstrate skills in teamwork and collaboration.
8. Utilize statistical analyses and health data management technologies.
9. Examine the influence of health determinants and other factors on health equity.
10. Demonstrate sound foundational knowledge of human body systems.

**F. BSHS Program's Student Learning Outcomes and University ELO's**

Table 2 shows the mapping and alignment of the BSHS program's Student Learning Outcomes (SLO) and the university's Essential Learning Outcomes (ELOs). The alignment of these two demonstrates the BSHS program's support for the institutional priorities. While no one course meets all the SLOs or ELOs, in the aggregate, the program exposes students to all of them at least once, but most of them, several times. Further, BSHS students are further exposed to most ELOs through General Studies and at some distance (ASD) courses, complementing the education they get from the program; therefore, helping them move from "aware" to "competent" and from "competent" to "skilled" by the time they graduate.

The BSHS program treats students as future healthcare professionals. As such, the program utilizes the ELO's most closely related to the skills healthcare professionals need to be effective clinicians. For example, clinical judgment relies heavily on Critical Thinking (CT), so this ELO is used heavily in the program. Similarly, Communication Skills (CS) are imperative for healthcare professionals to avoid human error and practice effectively. Finally, all healthcare professionals are required to use evidence-based practice; therefore, the BSHS program also relies on the Information Literacy & Research Skills (IL) ELO, so students learn how to access valid and reliable sources of information.

Table 2. Alignment of Program’s Student Learning Outcomes and University ELO’s

	BSHS Program Core Courses							
<p>PO:P = Program Outcome Partial Completion PO: X = Program Outcome Completion</p> <p>Adapting to Change (AC) Communication Skills (CS) Creativity &amp; Innovation (CI) Critical Thinking (CT) Ethical Reasoning (ER) Global Awareness (GA) Information Literacy &amp; Research Skills (IL) Program Competence (PC) Quantitative Reasoning (QR) Teamwork &amp; Collaboration (TC)</p> <p>Levels: 1 = Aware 2 = Competent 3 = Skilled</p>	<p>HLTH 1101 Introduction to Health Science</p>	<p>HLTH 1242 Medical Terminology</p>	<p>HLTH 2221 Functional Anatomy</p>	<p>HLTH 2305 Statistics</p>	<p>HLTH 2411 Informatics</p>	<p>HLTH 2501 Teamwork &amp; Collaboration</p>	<p>HLTH 3411 Writing &amp; Editing</p>	<p>HLTH 4200 Research</p>
<p><i>Program Outcome 1:</i> Analyze the impact the Core Competencies for Interprofessional Collaborative Practice (IPCP) have on health care.</p>	<p><b>PO:P</b> PC: 1</p>	<p>PC: 1</p>			<p><b>PO:P</b> PC: 1</p>	<p><b>PO: X</b> PC: 3</p>		<p><b>PO:P</b> PC: 3</p>
<p><i>Program Outcome 2:</i> Describe integrative health and wellness practices.</p>	<p><b>PO:X</b> PC: 1</p>	<p>CS: 1 PC: 1</p>	<p><b>PO:P</b> CT: 1 IL: 1</p>			<p>PC: 3</p>		
<p><i>Program Outcome 3:</i> Analyze the U.S. Healthcare System and its impact on healthcare access, quality, and outcomes.</p>	<p><b>PO:X</b> PC: 1</p>			<p><b>PO:P</b> PC:1 CT: 1</p>	<p><b>PO:P</b> CT: 1 PC: 1</p>	<p>CT: 2 GA: 1 PC: 3</p>		<p>CT: 2 IL: 2</p>
<p><i>Program Outcome 4:</i> Evaluate the influence of values and ethics on healthcare practice and research.</p>	<p><b>PO: P</b> ER: 1</p>			<p><b>PO:P</b> ER: 1 PC: 1</p>		<p><b>PO:X</b> CT: 2 ER: 2 PC: 3</p>	<p>ER: 2</p>	<p><b>PO: P</b> CT 3 ER 3</p>

<i>Program Outcome 5:</i> Demonstrate the ability to locate, critically evaluate, analyze, and use information to solve problems or to produce an argument.	<b>PO:P</b> IL: 1			<b>PO:P</b> CT: 2 PC: 2 QR: 2	<b>PO:P</b> CT: 2 IL: 2 PC: 2 QR: 1	<b>PO:P</b> CT: 2	<b>PO: P</b> CT: 2 IL: 2 PC: 2	<b>PO:X</b> CT: 3 IL: 3 PC: 3 QR: 2
<i>Program Outcome 6:</i> Demonstrate effective oral and written communication skills.	<b>PO: P</b> CS: 1	<b>PO:P</b> CS: 1 & 2		<b>PO:P</b> CS: 2 CT: 2 QR: 2		<b>PO:P</b> CS: 2 TC: 2	<b>PO:X</b> CS: 3 CT: 3 IL: 2	<b>PO:P</b> CS: 3 CT: 3
<i>Program Outcome 7:</i> Demonstrate skills in teamwork and collaboration.	<b>PO:P</b> TC: 1 PC: 1					<b>PO:X</b> CS: 2 TC: 3	<b>PO: P</b> CS: 2 TC: 2	<b>PO:P</b> TC: 3
<i>Program Outcome 8:</i> Utilize statistical analyses and health data management technologies.				<b>PO:X-S</b> PC: 3 IL: 2 QR:3	<b>PO:X-HDMT</b> CT: 2 ER: 1 IL: 2 PC: 2			<b>PO: P</b> CT: 3 IL: 3
<i>Program Outcome 9:</i> Examine the influence of health determinants and other factors on health equity.	<b>PO:P</b> ER: 1 PC: 1			<b>PO:P</b> PC:1		<b>PO:X</b> ER: 2 PC: 2		
<i>Program Outcome 10:</i> Demonstrate sound foundational knowledge of human body systems.		<b>PO: P</b> PC:1	<b>PO:X</b> PC: 3					

### ***Associate in Applied Science (A.A.S.) degree in Medical Laboratory Technology***

A medical laboratory scientist (MLS), also known as a medical technologist or clinical laboratory scientist, works to analyze a variety of biological specimens. They are responsible for performing scientific testing on samples and reporting results to physicians.<sup>2</sup>

Medical laboratory scientists perform complex tests on patient samples using sophisticated equipment like microscopes. The data they find plays an important role in identifying and treating cancer, heart disease, diabetes, and other medical conditions. It is estimated that 60 to 70 percent of all decisions regarding a patient's diagnosis, treatment, hospital admission, and discharge are based on the results of the tests medical laboratory scientists perform.<sup>2</sup>



**A. Mission:** The Medical Laboratory Technology Program sponsored by Mercer County Community College (MCCC) strives to provide a foundational clinical laboratory science curriculum and offer experiences that prepare students for success as entry-level medical laboratory technicians. The program provides the education and technical training to equip students to function competently and transition into essential members of the healthcare community while encouraging lifelong learning.

**B. A.A.S. in Medical Laboratory Technology Goals and Student Learning Outcomes (SLOs):**

Goal 1: To provide graduates who are qualified to work as entry-level medical laboratory technicians and are eligible to take national certification exams.

Learning outcome(s): *MLT Students will:*

- a. Integrate knowledge learned and experienced in the disciplines of general education, mathematics, science, and medical laboratory science;
- b. Achieve entry-level career competencies of a medical laboratory technician by testing biological samples using current technology to generate accurate, quality-assured laboratory results used for health and disease evaluations.
- c. Utilize critical thinking skills to assess and problem-solve laboratory data for patient diagnoses.

Goal 2: Students will apply professional and ethical behaviors along with interpersonal skills when communicating with colleagues and patients in the workplace.

Learning outcome: *MLT students will:*

- a. Maintain familiarity with the profession's code of ethics and consistently act within those standards during interactions with fellow classmates and working professionals in the clinical laboratory setting.
- b. Describe the importance of continuing education in lifelong learning and in obtaining and maintaining professional credentialing.

Goal 3: Provide a quality educational program that is flexible to student needs and meets employer expectations.

Learning outcome(s): *MLT Students will:*

- a. Demonstrate academic and technical competence in the professional courses of the curriculum through college and applied clinical education experiences.
- b. Gain relevant professional employment within one year of graduation from the program.
- c. (and their employers will) be satisfied with the training the student received in the MCCC MLT program.

## IV. Program Assessment

### ***BSHS Program Assessment***

The BSHS program has several levels of assessment to maintain the high quality of the program, and to update the content of the program on an ongoing basis. The main assessment of the program happens through the Program's *Systematic Evaluation*; this evaluation assesses the Program's Student Learning Outcomes. Because the program utilizes so many adjuncts, each core course is monitored by a *course facilitator*. These course facilitators function as a point of contact for everyone teaching the course to maintain the flow of communication about updates and problems in the course. Finally, the program also has an Exit Survey to track the impact the program is having on the students after they graduate. All these assessments are used to update the curriculum and delivery of the program.

- 1. BSHS Program Systematic Evaluation:** The BSHS program adopted 11 Student Learning Outcomes (SLO). Two of those SLOs are assessed every semester in the core course in which the students are expected to master the outcome. This means the systematic evaluation has a five-and-a-half-year cycle to evaluate the 11 Student Learning Outcomes. The faculty teaching the course in which the outcome will be assessed, in collaboration with the BSHS Assessment Committee and designated Course Facilitator, decide on the method to assess the outcome. For example, the evaluation will be performed by extracting data from a project or by adding an item to the final examination.
- 2. Course Facilitators:** As part of their agreed duties, each *course facilitator* conducts an informal assessment among all the instructors teaching their designated course through regular discussions about the course to highlight successes and to propose any recommended changes. The Course Facilitator reports any recommendations to the Curriculum Committee.
- 3. BSHS Exit Survey:** The BSHS program conducts an *exit survey* at the end of the Fall and Spring semesters. The purpose of this survey is two-fold: 1) to retain permanent contact information so the graduating students can be contacted in the future, and 2) to assess how well the program was able to help them meet their goals. For example, we ask them if they applied to a graduate program and if they were accepted, among other questions about their career plans. This data is supplemented with data from the National Clearinghouse, so we have a long-term picture of how many of our students are going to professional/graduate programs, and their success in graduating from those programs.

### ***A.A.S. in Medical Laboratory Technology Program Assessment***

- 1. Plan to evaluate the Goals of the Program.**
  - a. The MLT program is aligned with the College's mission, offering a high-quality education for individuals who are looking to enhance or develop new skills and obtain industry certifications and future employment. ([http://www.mccc.edu/welcome\\_mission.shtml](http://www.mccc.edu/welcome_mission.shtml))

- b. The College has an Office for Institutional Effectiveness whose mission is to “perform and direct activities that facilitate continuous quality improvement across the College as related to the fulfillment of the College’s mission and strategic plan and to foster a campus-wide culture of evidence-based decision making.” This office supports all the programs at the college, including the MLT program, by acting as a gatekeeper of information that can help each program coordinator/faculty member with identifying and measuring outcomes across all instructional units, including program-level, course-level, and general education outcomes in academic programs. All non-accredited programs are subjected to a full program review every 3-5 years. This office does not require accredited programs to utilize the assessment software because they understand that accredited programs create their own individualized plans that review the program-specific outcomes to meet the benchmarks/requirements that have been set by each accrediting body (i.e., NAACLS). (see attachment for MLT assessment plan)
- c. In order to ensure the program is of high quality, there are several methods used to review its effectiveness. The MCCC MLT Program Coordinator and faculty perform systematic assessment of the MLT Professional Phase courses. The MLT Program Coordinator is required to ensure that the Program Learning Goals and Objectives, which are approved by the MLT Advisory Board, are aligned with the College's Institutional Learning Goals/General Education Goals. Each course that is designated as "MLT" has its specific Course Learning Outcomes reviewed by the course coordinator and course instructor prior to the start of each new semester.
- d. A systematic review of effectiveness takes into consideration program content, the structure of the clinical and didactic curriculum, and performance standards relating to course and clinical objectives and entry-level career competencies. It involves faculty, students, graduates, employers, clinical educators, the advisory commission members, the formal self-study process, and the Self Study Report. Some details on the tools utilized and the frequency of feedback for the systematic review process can be found below (please note, some of these are also used as tools to assess program outcome):
  - i. Continual updates of student performance throughout each course by Faculty to Program Coordinator. Consultations are provided as resources to the students as necessary. Repeated incidences are used as a topic of discussion at the next Advisory Board Committee meeting.
  - ii. Current On-campus and Hybrid MLT students evaluate each MLT Course after course completion to allow for a SWOTT (strength, weakness, opportunities, tracking, trending) analysis. We try to make changes to the current upcoming MLT courses and the following year's cohort based on the evaluations.
  - iii. Student evaluation of faculty - All students evaluate the teaching effectiveness of faculty members each semester (UA, UB, F7A, F7B, S7A) using the program-approved and college-wide faculty evaluation form. This feedback is provided to each instructor and a comprehensive review takes place at the Program Planning Meeting that is held in the Spring (usually April) prior to the start of the new academic year (May).

- iv. Formal direct observations of each FT and PT faculty member as outlined in the union contracts.
- v. Advisory Committee: The Committee meets once a year and is comprised of faculty, clinical personnel, secondary school educators, and alumni. At this meeting, the results of the National Certification Exams and the graduate's employment record are discussed. This meeting is an opportunity for feedback from professionals in the field regarding recruitment, graduates, field-related issues or trends, and community enrichment opportunities that could be included in the curriculum.
- vi. Clinical Liaison meeting- Clinical lab professionals provide comments, observations, and suggestions concerning the program through formal and informal mechanisms. Each year at the Clinical Liaison's meeting, a portion of the agenda is devoted to receiving feedback concerning the program and what changes could be considered in order to better prepare the student for the clinical rotation and for post-graduation employment. Clinical competency forms (performance checklists and final exams) are reviewed and updated at the meetings. In addition, the bi-weekly site visits to the clinical affiliate include the informal solicitation by the MLT coordinator for suggestions and observations for changes in all aspects of the program. Changes in clinical methodologies are incorporated into course content and student laboratory practice.
- vii. Student evaluation of clinical sites - All students evaluate the clinical site that they attended at the end of the semester in which they are enrolled in the course.
- viii. Employer and graduate job placement surveys - employers of the MLT Program graduates are surveyed at least once after graduation (six months to a year after graduation).
- ix. Faculty meetings - the faculty meets at least once prior to the entrance of a new cohort of MLT students to discuss student progress, course evaluations, program effectiveness, and other matters.
- x. Analyzing data for the NAACLS survey on a yearly basis.

**2. Plan to evaluate the Student Learning Outcomes.**

The MLT program assesses Course Exam scores, ASCP BOC exam rates, graduation rates, and employment rate data.

**3. Plan to evaluate the success of alumni.**

The MLT program uses a 6-month post-grad survey as described above in part a.

### ***Dual Degree Program Assessment***

The assessment of student learning in the BSHS/Laboratory Science Dual Degree program will be conducted through the periodic assessment measures detailed above for the B.S. and A.A.S. degrees. The Dual Degree program will use data provided by the Office of Institutional Research, the School of Health Sciences, the Career Center, and survey instruments to assess how well the program meets students' needs by tracking time to degree completion, course grades, and student grade point averages, post-graduation outcomes, and student feedback.

### **V. Conclusion**

The mission of the BSHS Program is to provide a quality, contemporary, pre-health professional education for students who desire careers in the healthcare system. The demand for Medical Laboratory Technologists at the bachelor level is increasing, but there are a limited number of four-year programs. This dual degree will allow Stockton University and Mercer County Community College to graduate students with a Bachelor of Science ready to sit for the Medical Laboratory Scientist certification (the bachelor-level certification), without having to put together a costly new Medical Laboratory Scientist program from the ground up. Because of the need for these professionals in South Jersey, this Dual Degree program will also address a need in the community. The students who graduate from this dual degree program will be well-prepared to make significant contributions to their communities, and the healthcare system, and represent Stockton University and Mercer County Community College with pride.

## References

1. Interprofessional Education Collaborative Expert Panel. (2016). *Core competencies for interprofessional collaborative practice: 2016 Update*. Washington, D.C.: Interprofessional Education Collaborative.
2. Mayo Clinic College of Medicine and Science. (n.d.). Medical Laboratory Scientist. [https://college.mayo.edu/academics/explore-health-care-careers/careers-a-z/medical-laboratory-scientist/#:~:text=A%20medical%20laboratory%20scientist%20\(MLS,and%20reporting%20results%20to%20physicians.](https://college.mayo.edu/academics/explore-health-care-careers/careers-a-z/medical-laboratory-scientist/#:~:text=A%20medical%20laboratory%20scientist%20(MLS,and%20reporting%20results%20to%20physicians.)



December 4, 2023

Stockton University  
101 Vera King Farris Drive, F132  
Galloway, NJ 08205  
Attn: Luis I. Garcia, PhD, Tenured Assistant Professor of Health Science School of Health Sciences

Subject: Letter of Support for the Development of a Laboratory Science Program

Dear Dr. Garcia:

I am writing on behalf of Shore Medical Center to express our enthusiastic support for the proposed development of a Laboratory Science Program at your esteemed institution.

Having collaborated closely with Stockton on various healthcare initiatives, we recognize the importance of fostering well-trained professionals in the medical field. The establishment of a Laboratory Science Program aligns seamlessly with our commitment to advancing healthcare education and ensuring a skilled workforce. The lack of available, highly trained Technologists over the past several years has made it very difficult to recruit and fill our Laboratory openings. Many of these openings are a result of Technologists retiring, which we project to continue over the next five years.

Our medical center is eager to contribute to the success of this program through potential partnerships, clinical rotations, fellowships and expert guest lectures. The demand for qualified Laboratory Science professionals is rapidly increasing, and we believe that by working together, we can help address this need and enhance the overall quality of healthcare in our community.

The discussion we have had concerning the development of this program reflects a comprehensive understanding of the skills and knowledge required in today's healthcare landscape. We are confident that graduates from this program will be well prepared to meet the challenges of the dynamic medical laboratory environment.

In conclusion, Shore fully endorses the development of the Laboratory Science Program at Stockton. We look forward to collaborating closely with your institution to ensure the success and excellence of this initiative.

Please feel free to contact me at 609-653-3421 if you require any further information or assistance in this matter.

Thank you for your commitment to advancing healthcare education.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Alan L. Beatty', with a long horizontal flourish extending to the right.

Alan L. Beatty  
Vice President Human Resources