**Unit Strategic Plan**

**2021 - 2023**

**Name of Program/Department:** Medical Laboratory Technology/Center for Professional, Career and Technical Education

**Mission Statement (for the program or department):**

The mission of the Medical Laboratory Technology Program at Jefferson State Community College is to promote and maintain standards of quality for the services and the environment necessary for students to achieve their educational goals and to enhance the social, cognitive, and professional skills required for entry level employment as Medical laboratory technicians (MLTs) in the healthcare community.

**Summary of Access, Productivity and Effectiveness (Including, but not limited to, program load, success rate, retention rate, completion rate, employer surveys, student surveys):**

*College Career/Technical Education Performance Data*

I. Number of Degrees Conferred: IPEDS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CIP**  **PROGRAM** | **SU 2018**  **SP 2019** | **SU 2019**  **SP2020** | **SU 2020**  **SP 2021** | **Three-year average** |
| **51.1004** | Degree | Degree | Degree |  |
| **Medical Laboratory Technology**  **AAS C242** | 14 | 17 | 22 | 18 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Short Certificate**  **SCT C249**  **Certificate** | **SU 2018**  **SP 2019** | **SU 2019**  **SP2020** | **SU 2020**  **SP 2021** |
| **# awarded** | 2 | 19 | 24 |

*The IPEDS Completion Report*

The average number of degrees awarded has remained consistent over the last three years. We did see a decrease in the number of graduates for the 2018-19 reporting period. Attrition 1st and 2nd semester was especially increased with final clinical semester between 6-8 students for fall18, spring 19 and fall19 clinical groups. Admission statistics will show that enrollment and retention has rebounded for the 2019-20 and 2020-21 assessment periods. The restricted enrollment prevents any major increases in this area, but the program is focusing on retention through course sequencing and curriculum changes.

The MLT/Phlebotomy Short Certificate program began in 2016-17. This award captured the 1st. semester non-completers and was initially only offered to non-completers or students desiring just wishing to complete the phlebotomy certification program. This process continued for the 2017-18 cohort. The college decided to award all students satisfying the criteria the MLT/Phlebotomy Short certificate. The number in the 2018-19 cohort only represents the students not continuing in the MLT program. In spring 2019, per SAC-COC requirements we had to add more MLT course specific classes to the short certificate award. This has now prevented the certificate to be awarded to any student other than those admitted to the MLT program. All students completing the first semester of the MLT program are awarded to certificate. Statistics for this award will now reflect only the MLT program non-completers in future assessments.

**Licensure/Certification Exam Results**

Licensure/Certification Agency: American Society for Medical Pathologist Board of Certification (ASCP)

**II. ASCP BOR and AMT Certification Results**

**NAACLS BOC Testing cycle July-June**

|  |  |  |  |
| --- | --- | --- | --- |
| Certification Exam Pass Rates  ASCP-BOC or AMT exams | 7/1/17-  6/30/18 | 7/1/18-  6/30/19 | 7/1/19-6/30/20 |
|  |  |  |  |
| A) Total # of Graduates | 22 | 14 | 17 |
| B) #who sat for the exam within the  first year of graduation | 15 | 11 | 14 |
| C) # who passed the exam within the  first year of graduation | 14 | 7 | 11 |
| Yearly Certification Pass Rate: (C/B) | 93 | 64 | 79 |
| Three Year Average | 80% | | |

* **NAACLS Benchmark for ASCP Certification Rates: Three years consecutive results of graduates’ certification rates demonstrating an average of at least 75% pass rate on BOC examinations, for those who take the exam within the first year of graduation as calculated by the most recent three-year period.**
* Our three-year average is above the NAACLS benchmark. In April 2021 the NAACLS Board of Directors made a decision to include the American Medical Technologist exam in certification pass rates. This is beneficial to our program because students that do not pass the ASCP exam typically re-test with the AMT. Previously the program could not better ASCP certification scores and as a result had to prepare an action plan for pass rate improvements. Our 2020-21 cohort is

still in the 1-year time limit and will be evaluated during the 2022 NAACLS Annual survey. Currently I have 22 graduated in this cohort 22, 12 students have taken the certification exam and 10 passed for 83% pass rate.

**III. Admission Statistics**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Admission Cohort** | **Applications**  **Received** | **# Admitted**  **Total** | **# Out of Progression or program** | **# Out of Progression or program – RE\_ADMIT** | **Non-completers** |
| Summer  5/2018 | 26 | 16 | 2 | 2 | # Attrition/ %  1-2 semester  7/14 = 46% |
| **NAACLS Standard** # Attrition/ %  3rd semester  2/14 = 13%  **Graduation Rate 87%** |
| Fall  8/2018 | 25 | 15 | 1 |  | # Attrition/ %  1-2 semester  5/14 = 36% |
| **NAACLS Standard** # Attrition/ %  3rd semester  0/14 = 0%  **Graduation Rate 100%** |
| Summer  5/19 | 24 | 16 | 0 | 3 | # Attrition/ %  1-2 semester  5/19 = 26% |
| **NAACLS Standard** # Attrition/ %  3rd semester  1/19 = 5%  **Graduation Rate 95%** |
| Fall  5/19 | 21 | 14 | 0 | 0 | # Attrition/ %  1-2 semester  5/14 = 36% |
| **NAACLS Standard** # Attrition/ %  3rd semester  0/13 = 0%  **Graduation Rate 100%** |
| Summer 5/20 | 22 | 17 | 1 | **0** | # Attrition/ %  1-2 semester  4/17 = 23% |
| **NAACLS Standard** # Attrition/ %  3rd semester  2/17 = 12%  **Graduation Rate 88%** |
| Fall 8/20 | 9 | 8 | 2 | **0** | # Attrition/ %  1-2 semester  2/8 = 25% |
| **NAACLS Standard** # Attrition/ %  3rd semester  1/8 = 13%  **Graduation Rate 87%** |
| Summer 5/21 | 20 | 13 | 0 | **2** | **TBD** |
| **TBD** |
| Fall  8/21 | 14 | 13 | 0 | **0** | **TBD** |
| **TBD** |

* **NAACLS Benchmark for Graduation Rates: Three years consecutive results of graduation rates demonstrating an average of at least 70% of students who have begun the final half of the program go on to successfully graduate from the program as calculated by the most recent three-year period.**
* Retention rate – NAACLS defines attrition as students leaving after starting the second year of the program. We are using the third semester to define our attrition rates. **\*\* Attrition rates have been documented for students we lose first two semesters as well as the 3rd semester benchmark set by NAACLS. The graduation rate is calculated based on NAACLS standard and meets the benchmark of >70%.** The MLT department has met all NAACLS benchmarks in this area.
* We continue to have a high attrition first semester. This is common for this profession across the country. We have sequenced the courses to help with retention first semester. This lighter load for new MLT students gives them the opportunity to acclimate to the program easier.
* We have captured some of this 1-2 semester attrition with the award of the Short Certificate
* We continue to send out admission letters to approximately 20-25 students each admission cycle with around 14 students accepting a seat in the program each fall and summer semester. We saw a dramatic decrease in the Fall 2020 – Fall 2021 admission cycles primarily due to COVID issues. Clinical rotations in Phlebotomy first semester continue to be an issue and prevents any larger admission cohort. We are currently in negotiation with additional sites for phlebotomy clinicals and hope to increase admission numbers back up to pre-COVID class sizes around 18-20.

**IV. Job Placement MLT:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Year | # Program graduates | # working in field | % employed in field | Type facility | | | |
| H | RL | SL | DO/  C |
| 2017-2018 | 22 | 21 | 95% | 14 | 4 | 2 | 1 |
| 2018-2019 | 14 | 13 | 95% | 10 | 3 |  | 1 |
| 2019-2020 | 17 | 15 | 88% | 15 |  |  |  |
| Three Year Average | 40 | 49 | 82% |  |  |  |  |

H=Hospital, RL=Reference Laboratory, SL= Specialty Lab, DO/C= Doctors Office/Clinic

* **NAACLS Benchmark for Graduate Placement Rates: Three years consecutive results of graduate placement rates demonstrating that an average of at least 70% of respondent graduates either find employment in the field or a closely related field (for those that seek employment), or continue their education within one year of graduation as calculated by the most recent three - year period.**
* The MLT Program continues to place all graduates seeking employment.
* Statistics updated from graduate surveys and follow-up by program coordinator. To date all graduates from Fall 2020 have become employed in the field within 6 months of graduation at 100%.

**V. Employer Data**

|  |  |  |  |
| --- | --- | --- | --- |
| **Employer Surveys** | **% responding as “Good” or better on Personal Skills** | **% responding as “Good” or better on Technical Skills** | **% Responses to the question Do you feel that the educational program at JSCC prepared the employee well for his/her first position at “agree” or better** |
| 2019-2020 | 100% | 100% | 100% |
| 2018-2019 | 100% | 100% | 100% |
| 2017-2018 | 90% | 90% | 90% |

* Employer surveys- analysis of employer surveys continue to demonstrate positive comments. Laboratory managers within the Birmingham area continue to hire students that completed the Clinical phase at their facility. Surveys are sent each fall to compile information concerning fall and spring cohorts.

**VI. Graduate Data**

|  |  |  |
| --- | --- | --- |
| **Graduate Surveys** | **% responding to the question How satisfied are you with your education at JSCC at “satisfied” or better** | **% responding to the question How satisfied are you with your career choice at “satisfied” or better** |
| 2019-2020 | 100% | 100% |
| 2018-2019 | 84% | 84% |
| 2017-2018 | 84% | 80% |

* Student graduate surveys continue to be positive. Suggestions from previous surveys have resulted in changes in the semester sequence for the MLT coursework. The Blackboard course management system is being utilized in all MLT courses COVID required all MLT courses to be presented in a hybrid format.

**Internal Conditions:**

1. **Technology**

The instructional technology in all MLT student labs and instructional space is adequate. Instructional Technology has recognized the need to upgrade the two MLT full-time faculties office computers and this is reflected in our budget request and on IT computer needs. They have also placed the MLT student computers on an upgrade list due to age and operating system.

1. **Budget**

We have requested an increase in the MLT supply budget to $35,000.00 this request is primarily due to a sharp increase of approximately 30% in lab supplies that I attribute to COVID. We have also seen an increase in MLT admission and a decrease in attrition which has demanded additional supplies for labs. Other resources that are requested include our accreditation fees to NAACLS and this cycle will also include NAACLS site visit expense. Our typical subscriptions will remain the same and includes Medtraining yearly subscription, ASCP BOC statistics report and our Orchard Software licensing fee any small increases in fees and will be reflected in the budget. Additionally, we are requesting to purchase ASCP practice exams for our graduating class to be used in the MLT seminar class in preparation for taking the ASCP BOC exam. This tool has been a great predictor and study help for successful passing of the certification exam.

1. **Staffing**

Staffing is currently enough to meet the program needs. The program employs two full-time and two (2) L-19 instructors as needed. Currently, part-time/full-time ratios are very good. The typical 5 credit hour course, due to the lab component, requires 7 contact hours from the instructor. In addition, our lab space will only accommodate a class capacity no larger than 12 students and therefore requires additional lab sections for MLT 111, 121, 131, 141, 142, 151, 181 and 191. The L-19 instructors help with the extra lab sections, online instruction and other duties as needed. Full-time faculty can meet teaching load hour each fall, spring and summer semesters.

Two full-time office managers one housed at the Jefferson Campus and the other at the Shelby campus are available to assist the program as needed. These office managers support this program as well as other programs housed in the Center for Professional, Career and Technical Education. Support staff is adequate for our program needs.

1. **Resources**

The program’s resources are currently enough to meet program needs. The program currently has 22 affiliation agreements with area hospitals and clinics to accommodate the students’ clinical needs. Should the need arise we have additional distant clinical partners that have been used as needed but will need to update our affiliation agreements for these sites used. We are currently discussing affiliation agreements with Gadsden Regional and Anniston Regional for use each fall semester. This is Gadsden’s territory but they only complete clinical rotations each spring semester. Our clinical sites help provide expendable supplies for instruction with donations of reagents and equipment.

**5. Enrollment**

Enrollment remains stable with the ability to admit up to 20 students twice a year. Taking attrition into consideration first and second semester we typically send 12-14 students to Clinical rotations and most semesters do not have difficulty accommodating this number. We did see a significant decrease during the Summer/Fall 2020 and Summer/Fall 2021 admission cohorts due to uncertainty with COVID and lack of Phlebotomy Clinical rotations available due to short staffing in that area. We are trying to add more phlebotomy clinical sites to address admission problems.

**6. Facilities**

The MLT program has four designated classrooms for instruction and student labs.

Both, full-time MLT faculty have office space near the MLT labs. The part-time faculty shared

office has been renovated to house the new HST Education Coordinator. The budget will

reflect renovation of an additional office space to house both part-time MLT instructors and

future HST part-time instructors. We also will request additional secure storage space for

records and equipment. The students are blessed with their own break room with

kitchen facilities and lounge.

**7. Equipment**

We are requesting to purchase 4 new semi-automated chemistry analyzers to replace the RX Monza that is no longer being supported by Randox. We are also looking at new technology that can be offered to students with the purchase of a fully automated chemistry analyzer with ion selective electrode capabilities. This would allow students to obtain the skills needed to understand the technology, perform quality control and maintenance procedures before attending a clinical rotation. Future funding will continue to enhance technology and equipment for a molecular platform. All of these purchases are supported in feedback from clinical instructors, employer surveys and student surveys.

**External Conditions (such as state funding, accrediting agencies, advisory committees, postsecondary policy changes):**

The MLT Program is awarded accreditation through the National Accrediting Agency for Medical Laboratory Science (NAACLS). This agency has required standards that must be followed.

**NAACLS Standard VII. Faculty**

The program must have qualified faculty (e.g., Medical laboratory scientists/medical technologists, Medical laboratory technicians/medical laboratory technicians, administrators, managers and physicians).

**NAACLS Standard** **VII.A.2.C.** **Program Coordinator**

The program coordinator must show documentation of 36 CEU hours over each 3-year period.

**Standard VII.2.c. Didactic Instructor Appointments**

The program must have qualified faculty/instructors. The program must ensure and document ongoing professional development of the program faculty/instructors.

**NAACLS Standard III. Physical Resources**

**A**. Facilities

Classrooms, laboratories, administrative offices and other facilities must be adequate, equipped for safety, and must be in compliance with pertinent governmental laws.

**B**. Equipment and Supplies

Each student must have reasonable access to and experience with modern equipment and supplies.

**C**. Information Resources

Each student must have reasonable access to information resources containing current editions of books, periodicals and other reference materials in contemporary formats related to all content areas of the curriculum.

**D**. Instructional Resources

Adequate instructional resources must be available to facilitate each student’s attainment of entry level competencies.

E. Computer Technology

Each student must have access to and experience with contemporary computer technology.

The MLT Advisory Committee also makes recommendations based on industry standards and meets twice a year.

**2019-2020 Accomplishments:**

We successfully converted all campus based MLT classes to a hybrid format. We were able to resume student campus-based laboratories by middle June 2020

**2020-2021 Accomplishments:**

We completed the hybrid conversion for all MLT coursework. This cohort will be evaluated for Certification Pass rate in Fall 2022. We completed the hematology instrument repairs to be ready for fall classes.

**Unit Goals for 2021-2022**

|  |  |  |  |
| --- | --- | --- | --- |
| **Goal** | **Objectives** | **Method of Assessment** | **Additional Funding Requests** |
| Provide necessary equipment and reagents to teach entry level skills keeping abreast with new technology.  **Program Outcome #1**  70% of students admitted to the MLT program will complete as technically competent individuals ready to enter the laboratory workforce  **College Action Priority 1**  Improve and advance college programs and units, including both academic and workforce development efforts.  **Long-Range Goal 3.2**  Physical facilities, technological resources and other resources that promote learning | 1. Purchase the necessary equipment and supplies to provide high quality campus laboratory experiences. | 1. 80% or more of the faculty report satisfaction with available technology resources.  2. 80% or more of students report satisfaction with available resources | 1a. Increase consumable supply budget  $35,000.00  1b. 50x oil immersion lenses for Leica microscopes 295.00 X12 $3600.00  1c Purchase new chemistry analyzers 1 fully automated analyzer$40,000.00 and 4 semi-automated analyzers at $5,00.00 each totaling $20,000.00 |
| Monitor student progress with online tools that will enhance competency within the curriculum.  **Program Outcome #2.**  Graduates will take the ASCP BOC or AMT national certification exam with a pass rate at or above the NAACLS benchmark of 75%  **Long-Range Goal 2.2**  Career and Professional associate degree programs that integrate general and career specific education and prepare students for immediate employment. | 1. To increase the number of students passing a national certification exam | 1. ASCP BOC certification statistics at or above the NAACLS benchmark of 75% | 1. ASCP BOC testing report  Cost: $150.00 per year.  2. Medtraining training subscription  Cost: $1,395.00 yearly  3. NAACLS Accreditation yearly fees $2692.00  4. NAACLS Site visit expenses  $2000.00  5. Orchard Software license $3059.39  6. ASCP BOC Interactive Practice Exam [30@50.00](mailto:30@50.00) each =$1600.00  7. Printing 400.00 |
| Keep abreast of changes and trends in the Laboratory Science profession to improve classroom instruction.  **NAACLS Standards** NAACLS standard VII.A.2.C. **The program coordinator** must show  documentation of 36 CEU hours over each 3-year period.  Standard VII.2.c.  **Didactic Instructor Appointments**  The program must have qualified faculty/instructors. The program must ensure and document ongoing professional development of the program faculty/instructors.  **College Action Priority 1**  Improve and advance college programs and units, including both academic and workforce development efforts.  **Long-Range Goal 4.2**  Professional development experiences that enable personnel to maintain currency in their respective files, increase their awareness and use of alternative methods of meeting the needs of a diverse student population, and develop innovative approaches to fulfilling their roles in the institution. | 1. Provide the MLT full-time faculty the opportunity to obtain professional development. | 1. Meets NAACLS continuing education standards for accreditation | 1. Program Coordinator or Clinical Coordinator to attend CLEC. Site to be determined.  Estimated cost of $1,700.00  2. Program Coordinator or Clinical Coordinator  To attend CEU offering not to exceed $600.00 for IAP |
| Continue to develop and implement written Student Learning Outcomes (SLOs) for all courses in the department to more adequately document and enhance reporting of student progress in the department.  **Program Outcome #4**  Employers and graduates returning surveys will report 85% satisfaction with educational preparation  **College Action Priority #2**  Increase visibility and promote communication both inside and outside of the college | 1. Review SLOs annually and revise as necessary based upon input from faculty, graduates, employers, and advisory committee members. | 1. 80% of students surveyed will agree that outcomes are met.  2. 80% of employers surveyed will agree that outcomes are met.  3. Annual programmatic review of the outcomes assessment plan which incorporates surveys of employers, graduates, and advisory committee | 1. Funding for fall and spring  advisory meetings  Estimated cost: $450.00 |
| Develop partnerships and affiliation agreements with additional healthcare settings to increase the number of student enrollment in the program.  **Program Outcome #1.**  70% of students admitted to the HST program will complete as technically competent individuals ready to enter the laboratory workforce.  **College Action Priority #2**  Increase transparency, visibility, and communication inside and outside the college. | 1. Maintain Clinical affiliations with area hospitals and clinics. | 1. Clinical agencies will be sufficient to provide enrolled students with diverse and plentiful opportunities.  2. Maintain Clinical relationships | 1. Faculty travel expenses  Estimated cost: $1,500.00 |

**Unit Goals for 2022-2023**

|  |  |  |  |
| --- | --- | --- | --- |
| **Goal** | **Objectives** | **Method of Assessment** | **Additional Funding Requests** |
| Provide necessary equipment and reagents to teach entry level skills keeping abreast with new technology.  **Program Outcome #1.**  70% of students admitted to the MLT program will complete as technically competent individuals ready to enter the laboratory workforce  **College Action Priority 1**  Improve and advance college programs and units, including both academic and workforce development efforts.  **Long-Range Goal 3.2**  Physical facilities, technological resources and other resources that promote learning | 1. Purchase the necessary equipment and supplies to provide high quality campus laboratory experiences.  2. Maintain MLT equipment. | 1. 80% or more of the faculty report satisfaction with available technology resources.  2. 80% or more of students report satisfaction with available resources | 1a. Maintain consumable supply budget  $35,000.00  1b. Osmometer $20,000.00  1c. Molecular platform analyzer $20,000.00  2. a. Microscope Cleaning 27 microscopes approx. $1500.00 |
| Monitor student progress with online tools that will enhance competency within the curriculum.  **Program Outcome #2**  Graduates will take the ASCP BOC national certification exam with a pass rate at or above the NAACLS benchmark of 75%  **Long-Range Goal 2.2**  Career and Professional associate degree programs that integrate general and career specific education and prepare students for immediate employment. | 1. To increase the number of students passing a national certification exam | 1. ASCP BOC certification statistics at or above the NAACLS benchmark of 75% | 1. ASCP BOC testing report  Cost: $150.00 per year.  2. Medtraining training subscription  Cost: $1,395.00 yearly  3. NAACLS Accreditation yearly fees $2692.00  4. BOC interactive Practice Exams $1600.00  4. Orchard Software license 3055.39 |
| Keep abreast of changes and trends in the Laboratory Science profession to improve classroom instruction.  **NAACLS Standards** NAACLS standard VII.A.2.C. **The program coordinator** must show  documentation of 36 CEU hours over each 3-year period.  Standard VII.2.c.  **Didactic Instructor Appointments**  The program must have qualified faculty/instructors. The program must ensure and document ongoing professional development of the program faculty/instructors.  **College Action Priority 1**  Improve and advance college programs and units, including both academic and workforce development efforts.  **Long-Range Goal 4.2**  Professional development experiences that enable personnel to maintain currency in their respective files, increase their awareness and use of alternative methods of meeting the needs of a diverse student population, and develop innovative approaches to fulfilling their roles in the institution. | 1. Provide the MLT full-time faculty the opportunity to obtain professional development. | 1. Meets NAACLS continuing education standards for accreditation | 1. Program Coordinator or Clinical Coordinator to attend CLEC. Site to be determined.  Estimated cost of $1,700.00  2. Program Coordinator or Clinical Coordinator  To attend CEU offering not to exceed $500.00 for IAP |
| Continue to develop and implement written Student Learning Outcomes (SLOs) for all courses in the department to more adequately document and enhance reporting of student progress in the department.  **Program Outcome #4**  Employers and graduates returning surveys will report 85% satisfaction with educational preparation  **College Action Priority #2**  Increase visibility and promote communication both inside and outside of the college | 1. Review SLOs annually and revise as necessary based upon input from faculty, graduates, employers, and advisory committee members. | 1. 80% of students surveyed will agree that outcomes are met.  2. 80% of employers surveyed will agree that outcomes are met.  3. Annual programmatic review of the outcomes assessment plan which incorporates surveys of employers, graduates, and advisory committee | 1. Funding for fall and spring advisory meetings  Estimated cost: $450.00 |
| Develop contracts with additional healthcare settings to increase the number of student enrollment in the program.  **Program Outcome**  #1. 70% of students admitted to the MLT program will complete as technically competent individuals ready to enter the laboratory workforce.  **College Action Priority #2**  Increase visibility and promote communication both inside and outside of the college | 1. Maintain Clinical affiliations with area hospitals and clinics. | 1. Clinical agencies will be sufficient to provide enrolled students with diverse and plentiful opportunities.  2. Maintain Clinical relationships | 1. Faculty travel expenses  Estimated cost: $1,500.00 |