

KAPI'OLANI COMMUNITY COLLEGE
PROGRAM REVIEW

ASSOCIATE IN
MEDICAL LABORATORY TECHNICIAN DEGREE
2013-2015

Based on data for
2009 - 2012

TABLE OF CONTENTS

College Mission Statement	3
Program Mission Statement	3
Part I: Executive Summary of Program Status Response to Previous program review recommendations	4
Part II: Program Description	6
Part III: Quantitative Indicators for Program Review	13
Part IV: Assessment Results Chart for Program SLOs (3-5 Year Trend) Changes made as a result of findings	15
Part V: Curriculum Revision and Review (Minimum of 20% of existing courses is to be reviewed each year)	17
Part VI: Surveys results	17
Part VII: Analysis of Program	18
Part VIII: Action Plan	19
Part IX: Budget Implications	19

KAPI'OLANI COMMUNITY COLLEGE MISSION

- is a gathering place where Hawai'i's cultural diversity is celebrated, championed and reflected in the curriculum, pedagogy, support services and activities, students, faculty, staff, and administration.
- is a nurturing workplace of choice for strong and caring faculty, staff, and administrators committed to effective communication and shared vision, values, mission, and responsibilities.
- strives to provide the highest quality education and training for Hawai'i's people.
- provides open access, and promotes students' progress, learning and success with low tuition and high quality instructional programs, student development and support services, and selective areas of excellence and emphasis.
- prepares students to meet rigorous associate and baccalaureate requirements and personal enrichment goals by offering high quality liberal arts and other articulated transfer programs.
- delivers high quality 21st century career programs that prepare students for rigorous employment standards and to meet critical workforce immediate and long-term needs and contribute to a diversifying state economy.
- prepares students for lives of ethical and social responsibility by offering opportunities for increased service-learning and community engagement.
- leads locally, regionally, nationally and internationally in the development of integrated international education, enriched through global collaborations.
- uses human, physical, technological and financial resources effectively and efficiently to achieve ambitious educational goals and generate a solid return on the public's investment for a sustainable future.
- builds partnerships within the University and with other educational, governmental, business, and non-profit organizations to support improved lifelong learning.
- uses ongoing cycles of planning, best practice research, budgeting, implementation, assessment, and evaluation to drive continuous program and institutional improvement.

PROGRAM MISSION STATEMENT

The mission of the Medical Laboratory Technician Program is to develop and to deliver a student-centered health education program that employs industry standards and partners with the healthcare community by:

- offering credit and non-credit programs to provide competent and qualified personnel to meet the needs of the healthcare industry in Hawaii;
- providing quality learning opportunities for maintaining worker competence and career mobility in rapidly evolving healthcare field; and
- delivering friendly, courteous, individualized and student-centered instructional and related support services that promote the likelihood of student success.

PART 1

EXECUTIVE SUMMARY OF PROGRAM STATUS RESPONSE TO PREVIOUS PROGRAM REVIEW RECOMMENDATIONS

Part I: Program Health

OVERALL PROGRAM HEALTH (Check one)		
Healthy	Cautionary	Unhealthy
X		

Significant Program Actions (new certificates, stop-out; gain/loss of positions, results of prior year's action plan)

The MLT program has been re-accredited for seven years until 2015 and the Phlebotomy (certificate program) re-accredited for four years until 2012. In April 2012, the phlebotomy program received an additional three years of reaccreditation allowing both programs to return to the same accreditation cycle with accreditation due in April 2015.

As in August 2008, the program changed directorship in December 2010. The newest program director continues to make adjustments to the admission criteria and to conduct information sessions to generate interest in the program.

There has been great improvement in the completion rate compared to the previous years. Recent graduating classes of 2011 and 2012, had the largest number of students with 13 and 14, respectively. This improvement can be attributed to the change in admission criteria from the "First Come, First Accepted" to "Best Qualified, First Accepted." In an attempt to attract students who are dedicated to finishing the degree, a proposal to include program support courses in the admission criteria was drafted in May 2012.

The MLT curriculum continues on the semester format as revised in Spring 2010. The students are well prepared to handle multiple subjects concurrently. The program will continue on the semester system for the foreseeable future.

The recruitment efforts continue to show a remarkable improvement in the number of applicants into the MLT program. Monthly information sessions outlining admission criteria and instructing students on the application process have seen in a significant increase in attendance. Incorporating interactive lessons in the information session works exceedingly well by lessening the apprehension and increases the comprehension of facts.

Part III. Action Plan

According to the job market, we still have a shortage of MLTs in Hawai'i. There has been a record number of applicants for the past two application periods (49 and 64 applicants). Despite the substantial interest in the MLT program lately, efforts are being made to recruit more qualified students to the program.

Program Director would also like to add the HESI A² test to the admission criteria along with evaluation of the program support courses. The proposal for this change will be submitted in Spring 2013.

Program Director intends to make changes to the curriculum by removing MICR 161 Immunology and Protein Chemistry in exchange for MLT 105 Serology which will be renamed Clinical Immunology and Serology.

Neighbor islands lab personnel have requested students to train in their labs. A concerted effort has been made to ensure one neighbor island student is accepted each class with the understanding that the student will return to his/her island for 2 – 3 rotations during the final Spring semester.

The recruitment effort for Native Hawaiian students has been instrumental in allowing at least one Native Hawaiian to join the program each year.

Part IV. Resource Implications (physical, human, financial)

Laboratory supplies are very expensive and therefore still a major. The MLT program continues to depend on the generous donations from the program's clinical affiliates. Ninety percent of the laboratory instruments are outdated; some are beyond repair. These instruments should be replaced.

Program fees were increased from \$200 to \$275 in an attempt to alleviate budgetary shortfalls for the MLT program. Reagents are costly and the program fees barely cover what is needed for the semester. There is an additional drain on the program fee account as the MLT program has to pay for the removal of medical and biohazard waste. A sterilizer was ordered in January 2011, but has not been installed as March 2013.

A new program director was hired on December 15, 2010. The program is again in a transition period. The new program director is still reviewing the status of the program in order to make recommendations that will improve the quality of the program.

December 2011, one FTE was reassigned to a campus-wide program leaving one FTE available to instruct. The MLT program is critically short of teaching faculty. Two additional adjunct faculty members were hired in May 2012, but more lecturers are needed. One long time lecturer will not be returning to the program in Fall 2013.

With the agreement of a 2 + 2 program between KCC and UH-Manoa, an increase of enrollment in the MLT program is vital to increasing the number of students matriculating to UH-Manoa's Medical Technology Program. Before enrollment numbers can rise, more clinical training sites must be identified as this is the limiting factor. If more sites cannot be secured, then a longer training window must be explored.

PART II

PROGRAM DESCRIPTION

HISTORY

The MLT Program was established in 1972 as one of five Allied Health programs developed under a Federal grant to increase allied health manpower in Hawaii and the Pacific Basin. It was one of the first programs to be moved to the Diamond Head campus and since 1984 has been housed in Kauila Building along with all of the other Health Sciences programs.

Following an unfavorable accreditation site visit review, the program was discontinued in 1980-1981. A new program director was hired, major revisions were made in the program curriculum, and students were again admitted in the Fall 1981. The program received initial accreditation in 1983 for three years, with an extension of two years upon approval of a progress report in 1985. The program was reaccredited for the full five year term in 1988; the next reaccreditation site visit was completed in October 1992. There were no violations of the thirty Essentials found in the self-study or the site visit. The program received full accreditation for seven years in 1992 and in 2000 (expired in 2007). The program was reaccredited on April 30, 2008 for seven years (expires 2015).

In 1989-90, in response to community demand, the program director developed a short-term Certificate of Competency in Phlebotomy which was initially approved by NAACLS in 1992 and renewed in 1996 and 2000. Subsequently the program curriculum was revised so that the same course served as the introduction to MLT, the Phlebotomy didactic, and the Medical Assistant clinical lab procedures course. The Phlebotomy program was moved to non-credit in summer 1996, and continues to be under the direction of the MLT program.

In the Fall 1992, in response to a request from a neighbor island and with Act 68 funding from the Department of Labor, extension of the program to Hilo, Kona, and Maui began via HITS and other means.

In the Fall 1995, an outreach of the MLT program started in American Samoa. Students completed the program in the Fall 1996, but did not take the ASCP exam until June 1997.

GOALS

Goal 1: To prepare graduates for entry level Clinical Laboratory Technician positions.

Goal 2: To provide qualified Medical Laboratory Technicians for clinical laboratories in the state of Hawai'i.

Goal 3: To maintain an up-to-date curriculum that serves the needs of the students and the community.

Goal 4: To serve as an educational resource for the laboratory community.

Occupations for which this program prepares students:

The Medical Laboratory Technician (MLT) Program is one of eight programs in the Health Sciences Department. The program is competency-based and offers an Associate in Science degree in MLT and a non-credit Phlebotomy Technician Program. Both programs are accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS).

The MLT program prepares individuals to work in clinical laboratories in the hospitals, reference laboratories, physician office laboratories, clinics, public health agencies, research laboratories, veterinary medicine, and pharmaceutical industries. The graduates in the program can also be employed in sales, product development, and technical service departments of medical suppliers and clinical instrument manufacturers.

Program Student Learning Outcomes

Upon successful completion of the Associate in Science degree in Medical Laboratory Technician, the student should be able to:

1. Perform the clinical laboratory procedures expected of a medical laboratory technician.
2. Use knowledge of laboratory results to make clinical interpretations.
3. Apply the cognitive and technical skills necessary to function effectively in a clinical laboratory.
4. Maintain the ethical and professional standards necessary in a clinical laboratory and the healthcare industry.
5. Demonstrate the knowledge and skills necessary to function in a multicultural society.
6. Utilize interactive and communicative skills necessary to function in the medical industry as well as society as a whole.

ADMISSION REQUIREMENTS

Students are accepted into the MLT program during the Spring semester only. Acceptance is based on completion of the following prerequisites:

ENG 100, ESL 100 or higher English course
Math 103 or higher Math course
BIOL 130, BIOL 171, or ZOOL 142 or equivalent course
CHEM 161 and CHEM 161L or equivalent course
MLT 100, MEDT 151 or equivalent course or experience

First accepted will be those who are best qualified and have completed all prerequisites. Students enrolled in prerequisites during the application period will be placed on a waiting list.

DEGREE REQUIREMENTS

Associate in Science Degree

Prerequisites	Credits
ENG 100 Composition I or Expository Writing: A Guided Approach	3
or	
ESL 100 Expository Writing: A Guided Approach	3
MATH 103 Fundamentals of College Algebra	3
CHEM 161 General Chemistry I	3
CHEM 161 General Chemistry I Lab	1
BIOL 130 Anatomy and Physiology	4
or	
BIOL 171 General Biology I	3
or	
ZOOL141/142 Human Anatomy and Physiology I and II	6
MLT 100 Introduction to the Clinical Lab	2
Semester Total	15 - 18
Second Semester (Spring)	Credits
CHEM 162 General Chemistry II	3
CHEM 162L General Chemistry II Lab	1
MICRO 130 General Microbiology	3
MICRO 161 Immunology and Protein Chemistry	2
MLT 107 Clinical Microbiology I	3
MLT 108 Hematology	5
MLT 118 Body Fluids	1
Semester Total	18

Summer Session	Credits
MLT 100B Phlebotomy Practicum	1
MLT 112 Clinical Biochemistry I	<u>3</u>
Session Total	4

Third Semester (Fall)	Credits
MLT 204 Immunohematology	2
MLT 207 Clinical Microbiology II	3
MLT 211 Clinical Microscopy	1
MLT 212 Clinical Biochemistry II	4
A.S. Social Science (100 level or higher)	3
A.S. Humanities (100 level or higher)	<u>3</u>
Semester Total	16

Fourth Semester (Spring)	Credits
MLT 240 Seminar	1
MLT 242B Clinical Rotation II - Blood Bank	2
MLT 242C Clinical Rotation II - Chemistry	5
MLT 242D Clinical Rotation II - Microbiology	5
MLT 242E Clinical Rotation II - Hematology	<u>3</u>
Semester Total	17

TOTAL CREDITS 70 - 73

Clinical Rotation is conducted in affiliated community hospitals and laboratories and involves a regular work week of 40 hours for 18 weeks. Hours are scheduled by clinical staff and may include an occasional weekend or evening shift.

Note: A grade of “C” or higher must be maintained in all required courses to continue in the program. A student who does not satisfactorily complete the required courses as scheduled must have the program director’s approval to continue in the program and is placed on a learning contract.

FACULTY

The faculty members of the program are under the pay roll of the college.

Regular Faculty

Katrina Ghazanfar
Program Director and Clinical Coordinator

Sally Pestana, Phlebotomy Coordinator (from 2009 – December 2011)

Lecturers

Naomi Isaacson (adjunct)
Shepherd Maingano (both MLT and PBT programs)
Ray Yamaguchi (adjunct; both MLT and PBT programs)

CLINICAL INSTRUCTORS

The following is the list of clinical instructors. They are not under the pay roll of the college.

Castle Medical Center

Garth Weitzel, MLT(ASCP)

Clinical Laboratories of Hawai‘i (Hilo)

Mavis Hagiwara, A.S., MLT(ASCP), MT(HEW)
Lisa Javier, B.S., MT(ASCP),
Gavin Kawano, B.S., MT(ASCP)
Jean Kawano, B.S., MT(ASCP),
Brian Koge, B.S., MT(ASCP)
Wayne Long, B.S., MT(ASCP)

Clinical Laboratories of Hawai‘i (Kona)

Francis Boyce, B.A., MT(ASCP)SM
Penny Mack, B.A., MT(ASCP)
Sandra Ryan, B.A., MT(ASCP)

Clinical Laboratories of Hawai‘i (Maui)

Vicki A. D. Eto, B.S., MT(ASCP)
Wade Hiraga, B.S., MT(ASCP)
Linda Rivera, B.A., MT(ASCP)
Robin Terui, B.S., MT(ASCP)

Diagnostic Laboratory Services, Inc.

Amelia Chan, B.S., MT(ASCP)
Linda Hashiro, B.S., MT(ASCP),
Jodie Kawamoto, MT(ASCP)
Lynette Kilantang, B.S., MT(ASCP)
Kay Nishimura, B.S., MT(ASCP)

Hawai‘i State Department of Health Laboratories Branch

Harry Y. Domen, M.S., SM(ASCP)
Henry Higa, B.S., State license
Lei Inouye-Ching, A.S., MLT(ASCP)
Norman O’Conner, B.S., MT(ASCP), SM(ASCP)
Robert Ueki, B.S., State license

Hawai‘i State Hospital

Grace Gushiken, MT(ASCP)
Tracy Harada, MT(ASCP)

Kuakini Medical Center

Aldine Brown, MS., MT(ASCP)
Dianne Downey, B.S., MT(ASCP)
Bessie Fukeda, B.S., MT(ASCP)
Norman Oshiro, B.S., MT(ASCP)
Linda Yap, B.S., MT(ASCP)

Tripler Army Medical Center

Clayton Au, MT(ASCP)
Ester Do, MS, MT(ASCP)
Annette Harada, MT(ASCP)SH
Lynne Ramirez, MT(ASCP)
Yvonne N. N. Yogi, MT(ASCP)SBB

Veterans Affairs Medical Regional Clinic

Jodi Liao, MT(ASCP)

Wahiawa General Hospital

Arthur Choy, MT(ASCP)
Nolan Nakasone, MT(ASCP)

Waianae Coast Comprehensive Health Center

Dale Nakayama, MT(ASCP)
Dean T. Yoshimura, MT(ASCP)

ADVISORY COMMITTEE

The program advisory committee meets formally once a year to discuss and advise on curriculum, recruitment, and other matters relating to the program. There is frequent contact with individual members through other professional associations.

John Berestecky, PhD
Professor of Microbiology, KCC

Thomas Borgioli, MT(ASCP), HT(ASCP)
Schofield Barracks Medical Clinic

Aldine Brown, MSA, MLS(ASCP)^{CM}
Kuakini Medical Center

LTC Jose Chavez
Tripler Army Medical Center

Ester Do, MS, MT(ASCP)
Tripler Army Medical Center

Eric Holmes, MD
Director of Research Operations, JABSOM

Stacy Honda, MD
Kaiser Permanente Medical Center

Naomi Isaacson, MT(ASCP)
Diagnostic Laboratory Services, Inc

Geraldine Kaneshiro, MT(ASCP)
Clinical Laboratories of Hawaii
JABSOM

Richard Kasuya, MD
Associate Dean of Medical Education,

Sheila Kitamura, RDH, Med
Department Chair, Health Sciences, KCC

Susan Naka, MT(ASCP)
Department of Health, Laboratory Division

Patricia O'Hagan, PhD
Dean, Health Academic Programs, KCC

Louise Pagotto, PhD
Vice Chancellor of Academic Affairs KCC

Roy Magnusson, MD
Associate Dean of Clinical Affairs, JABSOM

Celeste Matsuo, MT(ASCP)
Kaiser Permanente Medical Center

Arlene Rosehill, COO
Clinical Laboratories of Hawaii

Patricia Taylor, MT(ASCP)
Medical Technology Division, UH-Manoa

Stacia Takeuchi, MT(ASCP)
Diagnostic Laboratory Services, Inc.

Dr. Eugene Yanagihara
Kuakini Medical Center

RESOURCES

Laboratory supplies are still a major concern because of the high cost. With the low budget, the MLT program depends on the generous donations from the program's clinical affiliates. The new program director is still reviewing the status of the program in order to make recommendations that will improve the quality of the program.

A sterilizer has been purchased and once installed will relieve the MLT program of the additional cost of autoclaving medical and biological waste.

Four new light (brightfield) microscopes are needed to replace ones that are failing.

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ARTICULATION AGREEMENTS

The Medical Laboratory Technician at Kapiolani Community College has articulation agreement with the Medical Technology at the University of Hawaii-Manoa. A baccalaureate degree in Medical Technology offered at the University of Hawaii-Manoa is the only other

clinical laboratory science program in Hawaii. There is cooperation with the baccalaureate program at UH-Manoa, in terms of sharing of large or expensive items of equipment infrequently used, as well as a means for MLT graduates to continue their education at the University of Hawaii-Manoa in the Medical Technology program.

The MLT program is carried out in cooperation with affiliated medical centers, community hospitals and clinics and private laboratories that provide the clinical experience for the students. The clinical experience is under the immediate supervision of the assigned laboratory personnel but with overall coordination and evaluation by the MLT program director.

PART III

Annual Report of Program Data for Medical Laboratory Tech
Kapiolani Community College Program Major(s): MLT

Overall Program Health: **Healthy**

Majors Included: MLT

Demand Indicators		Program Year			Demand Health Call
		09-10	10-11	11-12	
1	New & Replacement Positions (State)	23	23	24	Healthy
2	*New & Replacement Positions (County Prorated)	14	17	17	
3	*Number of Majors	25	25	28	
4	SSH Program Majors in Program Classes	503	593	571	
5	SSH Non-Majors in Program Classes	102	140	160	
6	SSH in All Program Classes	605	733	731	
7	FTE Enrollment in Program Classes	20	24	24	
8	Total Number of Classes Taught	17	19	16	

Efficiency Indicators		Program Year			Efficiency Health Call
		09-10	10-11	11-12	
9	Average Class Size	13.4	14.6	16.9	Healthy
10	*Fill Rate	83%	94%	92%	
11	FTE BOR Appointed Faculty	2	1	1	
12	*Majors to FTE BOR Appointed Faculty	12.3	24.5	27.5	
13	Majors to Analytic FTE Faculty	14.7	13.2	16.9	
13a	Analytic FTE Faculty	1.7	1.9	1.6	
14	Overall Program Budget Allocation	\$174,167	\$224,523	\$183,506	
14a	General Funded Budget Allocation	\$174,167	\$224,523	\$161,400	
14b	Special/Federal Budget Allocation	\$0	\$0	\$0	
14c	Tuition and Fees	Not Reported	Not Reported	\$22,106	
15	Cost per SSH	\$288	\$306	\$251	
16	Number of Low-Enrolled (<10) Classes	1	0	0	

Effectiveness Indicators		Program Year			Effectiveness Health Call
		09-10	10-11	11-12	
17	Successful Completion (Equivalent C or Higher)	98%	97%	93%	Healthy
18	Withdrawals (Grade = W)	2	2	13	
19	*Persistence (Fall to Spring)	88%	94%	95%	
20	*Unduplicated Degrees/Certificates Awarded	14	12	17	
20a	Degrees Awarded	14	12	17	
20b	Certificates of Achievement Awarded	0	0	0	
20c	Advanced Professional Certificates Awarded	0	0	0	
20d	Other Certificates Awarded	0	0	0	
21	External Licensing Exams Passed	Not Reported	Not Reported	100%	
22	Transfers to UH 4-yr	1	0	5	
22a	Transfers with credential from program	1	0	3	
22b	Transfers without credential from program	0	0	2	

Distance Education: Completely On-line Classes		Program Year		
		09-10	10-11	11-12
23	Number of Distance Education Classes Taught	0	0	0
24	Enrollment Distance Education Classes	0	0	0
25	Fill Rate	0%	0%	0%
26	Successful Completion (Equivalent C or Higher)	0%	0%	0%
27	Withdrawals (Grade = W)	0	0	0
28	Persistence (Fall to Spring Not Limited to Distance Education)	0%	0%	0%

Perkins IV Core Indicators 2010-2011		Goal	Actual	Met
29	1P1 Technical Skills Attainment	90.10	100.00	Met
30	2P1 Completion	45.00	92.86	Met
31	3P1 Student Retention or Transfer	56.00	95.00	Met
32	4P1 Student Placement	51.00	84.62	Met
33	5P1 Nontraditional Participation	16.25	21.21	Met
34	5P2 Nontraditional Completion	15.15	26.67	Met

PART IV

Program Name: Medical Laboratory Technician

Date: AY 2011-2012

Author: Dr. Katrina Ghazanfar

SLOs	Evidence of Industry Validation (CTE programs)	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment ¹	N
Clinical procedures performed by medical technician.	Clinical Rotation Evaluation and American Society for Clinical Pathology (ASCP) certification examination	90%	MLT 100 MLT 100B MICR 130 MLT 107 MLT 108 MLT 112 MLT 118 MLT 204 MLT 207 MLT 211 MLT 212 MLT 242 B,C,D,E	Course Examination and Laboratory Exercises OR Clinical Rotation Evaluations AND ASCP Certification Examination	201/207 = 97.1% achieved 70.0% proficiency or greater. Clinical Rotation Evaluations: 84/84 = 100% ASCP Pass Rate: 14/14 = 100%	Update and s class alpha curre dema Clinic Scien minin profic MLT cours to 75 2014
SLOs	Evidence of Industry Validation (CTE programs)	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment ³	N

¹Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

²Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

³Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

⁴Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

Knowledge of Skills to make rotations.	Clinical Rotation Evaluation and American Society for Clinical Pathology (ASCP) certification examination	90%	CHEM 161L CHEM 162L MICR 130 MLT 107 MLT 108 MLT 112 MLT 118 MLT 204 MLT 207 MLT 211 MLT 212 MLT 242 B,C,D,E	Course Examination and Laboratory Exercises OR Clinical Rotation Evaluations AND ASCP Certification Examination	257/260 = 98.8% achieved 70.0% proficiency or greater. Clinical Rotation Evaluations: 70/70 = 100% ASCP Pass Rate: 14/14 = 100%	Update and s class alpha curre dema Clinic Scien minin profic MLT cours to 75. 2014
SLOs	Evidence of Industry Validation (CTE programs)	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment⁵	N
Cognitive skills function clinical	Clinical Rotation Evaluation and American Society for Clinical Pathology (ASCP) certification examination	90%	BIOL 130 BIOL 171 ZOO 141/142 CHEM 161 CHEM 162 MICR 130 MICR 161 MLT 100B MLT 107 MLT 108 MLT 112	Course Examination and Laboratory Exercises OR Clinical Rotation Evaluations AND	287/292 = 98.3% met the outcomes at 70.0% proficiency or greater. Clinical Rotation Evaluations: 84/84 = 100% ASCP Pass Rate:	Update and s class alpha curre dema Clinic Scien minin profic MLT

⁵ Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

⁶ Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

			MLT 118 MLT 204 MLT 207 MLT 211 MLT 212 MLT 242 B,C,D,E	ASCP Certification Examination	14/14 = 100%	course to 75. 2014
SLOs	Evidence of Industry Validation (CTE programs)	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment⁷	N
the ethical nal ecessary in ratory ncare	Clinical Rotation Evaluation and American Society for Clinical Pathology (ASCP) certification examination	90%	MLT 100 MLT 100B MLT 240 MLT 242 B,C,D,E	Course Examination and Laboratory Exercises OR Clinical Rotation Evaluations AND ASCP Certification Examination	55/57 = 96.5% met the outcomes at 70.0% proficiency or greater. Clinical Rotation Evaluations: 82/82 = 100% ASCP Pass Rate: 14/14 = 100%	Upda and s class alpha curre dema Clini Scien mini profic MLT course to 75. 2014
s	Evidence of Industry	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment ⁹	Next

⁷Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

⁸Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

⁹Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

	Validation (CTE programs)					
te the and skills function ural	Clinical Rotation Evaluation and American Society for Clinical Pathology (ASCP) certification examination	90%	ENG 100+ MATH 103+ MLT 100 MLT 100B AS/SS 100+ AS/AH 100+ MLT 240 MLT 242 B,C,D,E	Course Examination and Laboratory Exercises OR Clinical Rotation Evaluations AND ASCP Certification Examination	205/207 = 99.0% met the outcomes at 70.0% proficiency or greater. Clinical Rotation Evaluations: 96/96 = 100% ASCP Pass Rate: 14/14 = 100%	Upda and s class alpha curre dema Clinie Scien minir profic MLT cours to 75. 2014
s	Evidence of Industry Validation (CTE programs)	Expected Level of Achievement	COURSE(S) ASSESSED	Assessment Strategy/ instrument	Results of Program Assessment ¹¹	Next
practive icative y to e medical ell as	Clinical Rotation Evaluation and American	90%	ENG 100+ MLT 100 MLT 100B AS/SS 100+ AS/AH 100+	Course Examination and Laboratory Exercises OR	188/190 = 98.9% met the outcomes at 70.0% proficiency or greater.	Upda and s class alpha curre

¹⁰ Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

¹¹ Results of program assessment: % of students who met the outcome(s) and at what level they met the outcome(s)

¹² Next Steps: what will the program do to improve the results? Next steps can include revision to syllabi, curriculum, teaching methods, student support, and other.

hole.	Society for Clinical Pathology (ASCP) certification examination		MLT 240 MLT 242 B,C,D,E	Clinical Rotation Evaluations AND ASCP Certification Examination	Clinical Rotation Evaluations: 84/84 = 100% ASCP Pass Rate: 14/14 = 100%	dema Clini Scien mini profi MLT cours to 75 2014
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Please complete the table above. Please also submit:

MEDICAL LABORATORY TECHNICIAN PROGRAM

Students who are accepted to the Medical Laboratory Technician Program are evaluated as they progress through the program based on their learning outcomes. The learning outcomes are emphasized both in the didactic and clinical phases of the program. These learning outcomes are in compliance with the institutional policies as well as National Accrediting Agency for Clinical Laboratory Sciences guidelines.

Program Student Learning Outcomes: Upon successful completion of the Associate in Science degree in Medical Laboratory Technician, the student should be able to:

1. Perform the clinical laboratory procedures expected of a medical laboratory technician.
2. Use knowledge of laboratory results to make clinical interpretations.
3. Apply the cognitive and technical skills necessary to function effectively in a clinical laboratory.
4. Maintain the ethical and professional standards necessary in a clinical laboratory and the healthcare industry.
5. Demonstrate the knowledge and skills necessary to function in a multicultural society.
6. Utilize interactive and communicative skills necessary to function in the medical industry as well as society as a whole.

PART V

Curriculum Revision and Review

Course	Last update	Next update
MLT 100	2009	2014
MLT 100B	2009	2014
MLT 105	2003	2013
MLT 107	2009	2014
MLT 108	2009	2014
MLT 118	2009	2014
MLT 112	2005	2013
MLT 204	2009	2014
MLT 211	2009	2014
MLT 212	2006	2013
MLT 240	2006	2013
MLT 242B	2006	2013
MLT 242C	2006	2013
MLT 242D	2006	2013
MLT 242E	2005	2013

PART VI

Survey Results

The last National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) self-study for the MLT program was completed in July 2007. The next self-study is due in 2014. The next accreditation inspection is due in Spring 2015.

Documentation of meeting the NAACLS standards is currently being collected in anticipation of reaccreditation. Standards recently revised and program directors were notified in August 2012 of the updated standards.

The following data is being collected at the prescribed frequency to meet the individual standards set for MLT programs (Standards 18 – 21):

The program graduates, advisory committee and the employers are surveyed to determine if the outcomes of the student learning meet the needs of the graduates and the community six months post graduation.

Program's evaluations (Student Learning Outcomes) are assessed in the following standards:

Standard18. The program has a documented, formal evaluation plan for continually and systematically reviewing the effectiveness of the program.

Evaluation includes feedback from:	Frequency:
Students	each semester
Employers of graduates	annually
Faculty	ongoing
Graduates	annually
Comprehensive and Final Exams	annually
Joint Advisory Committee	annually

Standard19. Outcomes measures from the last three active years are considered in the program evaluation.

Standard 20. A review of graduation rates is:

Documented
Analyzed
Used in the program evaluation

A review of employment rates is:

Documented
Analyzed

Standard 21. The results of program evaluations are:

Documented
Reflected in ongoing curriculum development and program modification
Followed by an analysis of the effectiveness of any changes implemented

PART VII

ANALYSIS OF PROGRAM

The MLT program continues to graduate students who are fully prepared to work in the clinical laboratories and to pass the American Society of Clinical Pathology national certification exam. Employers are satisfied with the quality of graduates and there is still a high demand for more graduates to fill positions in the local clinical laboratories and on neighboring islands.

To be employed in Hawaii, MLTs must be licensed. Licensure depends on passing the national certification exam.

Exam Year	# of Students Accepted	Took Certification Exam	Passed Exam	First Time Program Passing Rate	First Time National Passing Rate
2009	16	11	10	90.9%	72.3%
2010	16	13	13	100%	75.8%
2011	17	14	13*	92.9%	79.7%
2012	19	10	10	100%	77.4%

*Student challenged the exam a second time and was successful.

Most of the students who sat for the national certification examination from 2009 until 2012 are now working in the hospitals, medical centers, research labs or industrial labs. Some have pursued advanced degrees or have enrolled in the Medical Technology program.

There is a gradual improvement in the completion rate as well as passing rate on the national certification examination.

The application pool for the program in has quadrupled from 2009 until 2012 leaving many qualified students on the waiting list.

The MLT program is fully accredited through 2014 with the reaccreditation inspection to be in Spring 2015. The program is meeting the mission of the College, its stated goals and in compliance with guidelines of the accrediting agency, NAACLS.

PART VIII

Action Plan

The following actions are expected to improve the program outcomes and will be put into action for next assessment period:

The number of qualified applicants to the MLT program has quadrupled since 2009. There is a need to increase enrollment in order to accommodate these students and to feed into the MT program at UH-Manoa. Will investigate the feasibility of more obtaining more clinical rotations during the Fall semesters to accommodate more students.

Update all course objectives to correlate with changes in the clinical laboratory sciences field and reflect the most up to date expectations of knowledge according to industry standards.

Reactivate and update the MLT 105 Serology course to replace the MICR 161 Immunology and Protein Chemistry to provide students with a clinical perspective and hands on experience in the performance of clinically relevant immunology and serology tests, analyze the results, and recognize pertinent diagnoses.

Raise the standards for passing MLT courses from 70% to 75% to align the program with the other Health Sciences programs. Also this course of action should raise the raw scores on the national certification examination.

Update the program description, course descriptions, program acceptance criteria, required program courses, and prerequisites in the online catalog.

PART IX

Budget Implications

Admission of more students to the program will require additional resources for instruction. Although the program has some of the resources in place, yet additional equipment such as microscopes, cell counters, student lockers, biochemical reagents, and storage space are needed. Currently, the laboratory fee per a semester has been increased to \$275.00. If we are able to admit qualified applicants twice a year, this will require two or more sections of course instruction. More instructors will have to be hired and the current instructor will have to be paid for teaching over load. Additionally, an increase in enrollment will require additional classroom space.