

Dalton State College
Comprehensive Program Review

Program/Subject Area: Medical Laboratory Technician A.A.S
Review Period: 2009-2013

1. PROGRAM GOAL AND STUDENT LEARNING OUTCOMES

Program Goal Statement:

Program's goals:

The Medical Laboratory Technology program is a sequence of courses that prepares students for technician positions in medical laboratories and related business and industries. Learning opportunities develop academic, technical, and professional knowledge and skills required for job acquisition, retention, and advancement. The program emphasizes a combination of didactic and clinical instruction necessary for successful employment. Program graduates receive an Associate of Applied Science degree in Medical Laboratory Technology, have the qualifications of a medical laboratory technician, and are eligible for certification.

The Medical Laboratory Technology program graduates are eligible to sit for a national certification exam and are prepared to function as professional technicians in medical laboratories. Program graduates are to be competent in the general areas of: communications, math, interpersonal relations, anatomy and physiology, and inorganic chemistry. Program graduates are competent to work in the major medical laboratory areas of: phlebotomy, urinalysis, hematology, immunology, serology, clinical chemistry, microbiology, and immunohematology.

Program Outcomes:

Goals/Objectives

1. Provide current curriculum, instructional materials, and equipment (in accordance with available funding) which teach knowledge, skills, and attitudes appropriate to industry needs.
2. Provide educational facilities which foster learning and provide safe healthy environments available and accessible to all students who can benefit from the program.
3. Provide academic instruction which supports effective learning within the program and which enhances professional performance on the job.
4. Provide employability skills which foster work attitudes and work habits that will enable graduates of the program to perform as good employees.
5. Nurture the desire for learning so that graduates will pursue their own continuing education as a lifelong endeavor.
6. Provide an educational atmosphere which promotes a positive self-image and a sense of personal well-being.
7. Provide education that fosters development of good safety habits.
8. Provide admission, educational, and placement services without regard to

Dalton State College Comprehensive Program Review

race, color, national origin, religion, sex, age, or handicapping condition.

9. Provide information to the public regarding the program that will facilitate recruitment and enrollment of students.
10. Promote good public relations via contacts and regular communications with business, industry, and the public sector.
11. Promote faculty and student rapport and communications to enhance student success in the program.

Student Learning Outcomes:

Program Student Learning Outcomes/Graduate competencies:

The Medical Laboratory Technician Program at Dalton State College mission is to impart the fundamental knowledge and practical skills of medical technology to the students so that the following objectives may be reached:

1. The student should be more fulfilled in his or her personal and community life.
2. The student should receive personal fulfillment in his ability to perform laboratory work.
3. The student should have a professional attitude toward the laboratory work and be able to perform at a graduate level in specimen analysis and laboratory processes.
4. The student should be able to perform satisfactorily in any laboratory situation.
5. The student should be able to accurately judge the variability of laboratory tests.
6. The student should be able to establish professional patient contact.
7. The student will practice entry level- medical laboratory technician analysis on the job as expected by employers with a minimum of orientation to the duties of the job.

2. MEASURES OF EFFECTIVENESS

(a) Five-year enrollment summary by headcount, FTE, & full-time/part-time status

	2009	2010	2011	2012	2013	% Change
Headcount	25	44	46	50	59	136%
FTE	17.3	38.3	39.4	40.2	43.8	153%
Full-time	6	24	22	23	17	183%
Part-time	19	20	24	27	42	121%

Analysis and Comments:

Consistent number of students over the last 5 years with very little change in enrollment in the MLT program other than a consistent increase in the number of students enrolled. Full-time vs part-time enrollment significantly changed over the 5 year period with an increase in part-time enrollment and a decrease in full-time enrollment.

**Dalton State College
Comprehensive Program Review**

(b) Five-year enrollment summary by gender & race/ethnicity

	2009	2010	2011	2012	2013	% change
Gender						
Female	19	32	38	39	44	132%
Male	6	11	8	11	15	150%
Race/Ethnicity						
American Indian	0	0	0	0	0	0
Asian	1	2	1	0	0	-100%
African-American	0	2	3	5	2	200%
Hispanic	3	3	2	6	10	233%
Multi-racial	0	1	1	0	0	0
Undeclared	7	5	5	1	2	-29%
White	31	31	37	38	45	45%
Analysis and Comments: Majority of the students entering the program tend to lean toward the female gender and have observed an increase in the Hispanic population in the last few years. The area of MLT student population is predominantly Caucasian female students based on numbers and population.						

(c) Average class size, GPA, faculty/student ratios, and credit hours

	2009	2010	2011	2012	2013
Average class size	6	7.7	8.4	9.8	10.7
Student credit hours	284	324	279	368	401
Credit hours/FTE faculty	15	15	15	15	15
Analysis and Comments: Class size and credit hours have remain consistent and constant through the 2009-2013 program review years based on given statistics.					

(d) Faculty teaching in program

Total Faculty					
Full-time Faculty	1	1	1	1	1
Part-time Faculty	2	2	2	2	2
Gender					
Male					
Female	3	3	3	3	3
Race/Ethnicity					
American Indian/Pacific					
Asian					
African-American					
Hispanic					
White	3	3	3	3	3
Multiracial					
Tenure Status (full-time)					

**Dalton State College
Comprehensive Program Review**

Tenured	2	2	2	2	2
On-tenure track					
Non-tenure track	1	1	1	1	1
Rank (full-time)					
Professor					
Associate Professor	2	2	2	2	2
Assistant Professor					
Instructor/Lecturer	1	1	1	1	1
Highest Degree (full-time)					
Doctorate					
Specialist	1	1	1	1	1
Master's	1	1	1	1	1
Bachelor's	1	1	1	1	1
Associate's/Other					

Analysis and Comments:

One faculty retired and returned to work part-time permanently. One instructor works part-time as needed. One faculty is full-time as instructor and Program Director.

**Dalton State College
Comprehensive Program Review**

(e) Percent of classes taught by full-time faculty

2009	2010	2011	2012	2013
66%	66%	66%	66%	66%
<u>Analysis and Comments:</u>				
With the faculty working as stated the program needs at least one full-time faculty and one part-time instructor/faculty to distribute the class load and to benefit the student population to provide a conducive learning environment.				

(f) Number of degrees conferred

2009	2010	2011	2012	2013
7	7	3	4	6
<u>Analysis and Comments:</u>				
Consistent growth and increase in degrees awarded as years progressed. There has been a consistent increase in student enrollment and graduates since 2010. With the transition of students attending classes on a part-time vs full-time bases, the shift to more part-time student status has affected the total number of students completing and graduating from the program at one time.				

(g) Placement rates: Five-year summary of job placement rates, if applicable

2009	2010	2011	2012	2013
100%	100%	100%	100%	100%
<u>Analysis and Comments:</u>				
There is 100% job placement within 3 months for all students graduating in the MLT program. Most find jobs immediately after graduation. Some student that earned a Bachelor's degree prior to entering the MLT program did not apply for graduation since they could qualify to take the ASCP registry after completion of the MLT major courses and their Bachelor's degree courses. The MLT program had 100% placement and surveys show employers are satisfied with the students as employee in the laboratory profession.				

(h) Cost per Full-time Faculty (Average Faculty Salary)

	2009	2010	2011	2012	2013
Average Salary	\$50-56,000.00	\$50-56,000.00	\$50-56,000.00	\$50-56,000.00	\$50-56,000.00
<u>Analysis and Comments:</u>					
No significant change in salary due to a freeze on salary increase at the state level.					

Dalton State College Comprehensive Program Review

(i) Summary and evidence of achievement of Program Outcomes

Describe the extent to which students have achieved current Program Outcomes

All students finishing the MLT program have passed the ASCP certification exam (100% pass rate-first time takers) and all are working that want to work. Some are working in companies that supply clinical laboratory equipment and/or supplies and others are working in hospitals, or physician office clinics. Salaries are good and our employer's surveys indicate satisfaction in their training/work when hired at the various facilities. Several graduates have continued their education and obtained B.S. degrees after graduation.

(j) Summary and evidence of achievement of Student Learning Outcomes

Describe the extent to which students have achieved current student learning outcomes in Area F and/or upper-division courses, if applicable. (current year)

All MLT students must meet the requirements for lecture/lab with a passing grade of "C"=78 to 79 or better in their clinical/academic MLT major courses. Beginning Fall 2014 all MLT major courses will have the requirement of that 80 or above as a minimum passing grade.

(k) Evidence of Program viability

Based on enrollment history, retention rates, degree completion/graduation rates, and other program outcomes, comment on whether continued resources should be devoted to this program. Your comments should consider external factors such as the following: Are your students getting jobs? What is the job outlook for graduates? Are students prepared for the jobs they get? How is the field changing? Are the program faculty members in touch with employers and getting feedback on our students' performance? Do employers see a need for changes in the program?

Based on enrollment history, retention rates, degree completion/graduation rates, and other program outcomes, there should be a continued resources devoted to this program. There has been a steady influx of students and graduation rates for 2005-2010 with a greater increase since 2010 (graduation rate 8-10 students per year since 2010). Students graduating the MLT program have 100% job placement if they choose to work, some have chosen to continue their education.

The field is changing in that it is moving toward the area of molecular study and DNA diagnosis in the lab. Our courses and clinical training that the students take and we teach, such as Clinical Chemistry, Immunology and Clinical Microbiology have included the areas of change and students are well versed and trained in these areas. The faculty is always in communication with the area hospitals through e-mail, site visits and advisory board meeting to evaluate the area needs and students. Also, annually the MLT program sends employee and program evaluations to the various area hospitals for their feedback on satisfaction and improvements.

Our instructors are required to attend and obtain a minimum number of 32 C.E.U.'s (continuing education credits) over 3 years to retain their certification by ASCP. The C.E.U.'s are obtained through the attendance of conferences, workshops and teleconferences in the various areas of the clinical laboratory field.

Summary

Clinical laboratory personnel examine and test body fluids and cells.

Quick Facts: Medical and Clinical Laboratory Technologists and Technicians

Dalton State College Comprehensive Program Review

2012 Median Pay
\$47,820 per year
\$22.99 per hour
Entry-Level Education
See How to Become One

Work Experience in a Related Occupation
None

On-the-job Training
None

Number of Jobs, 2012
325,800

Job Outlook, 2012-22
22% (Much faster than average)
Employment Change, 2012-22
70,600

What Medical and Clinical Laboratory Technologists and Technicians Do
Medical laboratory technologists (commonly known as medical laboratory scientists) and medical laboratory technicians collect samples and perform tests to analyze body fluids, tissue, and other substances.

Work Environment

About half of all medical laboratory technologists and technicians were employed in hospitals in 2012. Others worked in doctors' offices or diagnostic laboratories.

How to Become a Medical and Clinical Laboratory Technologist or Technician

Medical laboratory technologists typically need a bachelor's degree. Technicians usually need an associate's degree or a postsecondary certificate. Some states require technologists and technicians to be licensed.

Pay

The median annual wage for medical laboratory technologists was \$57,580 in May 2012. The median annual wage for medical laboratory technicians was \$37,240 in May 2012.

Job Outlook

Employment of medical laboratory technologists and technicians is projected to grow 22 percent from 2012 to 2022, much faster than the average for all occupations. An increase in the aging population will lead to a greater need to diagnose medical conditions, such as cancer or type 2 diabetes, through laboratory procedures

Similar Occupations

Compare the job duties, education, job growth, and pay of medical and clinical laboratory technologists and technicians with similar occupations.

More Information, Including Links to O*NET

Learn more about medical and clinical laboratory technologists and technicians by visiting additional resources, including O*NET, a source on key characteristics of workers and occupations.

What They Do ->

Suggested citation:

Bureau of Labor Statistics, U.S. Department of Labor, Occupational Outlook Handbook, 2014-15 Edition, Medical and Clinical Laboratory Technologists and Technicians, on the Internet at <http://www.bls.gov/ooh/healthcare/medical-and-clinical-laboratory-technologists-and-technicians.htm> (visited January 14, 2014).

Other links:

www.bls.gov/oes/current/oes292012.htm

<http://money.usnews.com/careers/best-jobs/clinical-laboratory-technician>

http://explorehealthcareers.org/en/Career/28/Clinical_Laboratory_TechnologistTechnician

<http://medical-careers-review.toptenreviews.com/medical-laboratory-technicians-review.html>

Dalton State College
Comprehensive Program Review

http://www.studentscholarships.org/careers_salary/233/outlook/medical_laboratory_technicians.php

ATTACHED: Letter of support from area hospitals.



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Rome, GA 30162-0233
706.509.5000 Phone
www.floyd.org

January 14, 2014

To Whom It May Concern:

Floyd Medical Center Laboratory, as a clinical training site, has a long-standing relationship with the Dalton College Medical Laboratory Technician program. The students from the MLT program come to Floyd well-prepared and are almost always successful in completing the requirements for clinical training. The three most recent students at Floyd were excellent in all aspects, and we were pleased to have jobs for them when they completed the program.

The faculty for the MLT program is responsive to needs and ideas from the clinical training sites. Any problems are addressed immediately and thoroughly. They routinely seek feedback on what can be done to improve, and have made changes as needed.

The need for MLT's in our area will continue for the foreseeable future. With very few Medical Technologist programs in Georgia, and an average age above 50 for current lab techs, the MLT program will be essential to meet staffing needs. At Floyd, 51% of the technical staff is over age 50, and it's already difficult to fill positions. This problem will grow over the next 10-15 years as many reach retirement age. Other hospital labs are facing the same scenario, so jobs will be available as future students graduate.

The program provides a good base for students who want to continue on to a four-year degree, and allows them to work in their field and gain valuable experience while furthering their education.

Floyd Medical Center is very happy to be associated with the Dalton program and will continue to support MLT students through clinical training and employment opportunities.

Sincerely,

A handwritten signature in cursive script that reads "Dianne Nichols".

Dianne Nichols, BS, MT, MBA

Administrative Director, Laboratory Services

**Dalton State College
Comprehensive Program Review**

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**Dalton State College
Comprehensive Program Review**



Hamilton
Hamilton Medical Center

January 23, 2014

Tyra Stalling
Dalton State College
650 College Dr.
Dalton, GA 30720

Dear Tyra,

Allow me to take a moment and express my thanks for the quality of Medical Laboratory Technician (MLT) students we train from Dalton State College (DSC). Since 1984, I have been associated with the program at Dalton State in many ways. Many of my colleagues from around the state are dealing with significant staffing issues. Fortunately, we have not had those difficulties, specifically because of our relationship with the DSC. I have found that when students arrive for their clinical rotation, they are prepared and have a strong understanding of the course materials. This is also demonstrated by the high pass rates these students have on the certification exam.

As a conservative guess, I would put forth that more than 60% of our technical staff are graduates of the MLT program at DSC. Many of these MLT's have gone through additional education and training and attained certification as Medical Technologists. It is my understanding that graduates from this program do not have difficulty finding jobs. Some may be hired in a PRN status until permanent position open up, but in my experience, that typically doesn't take very long. This speaks to the appropriateness of class size and graduation rate.

The MLT program has my complete support. I could not imagine trying to staff this laboratory without the high quality, well educated students we have the opportunity to work with for clinical training.

Thanks,

A handwritten signature in cursive script that reads "Kenny Lowery".

Kenny Lowery, MT (ASCP), M.Ed.
Director, Laboratory Services
Hamilton Medical Center

(1984 graduate of the MLT program)

650 COLLEGE DR. DALTON, GA 30720-1111
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Dalton State College
Comprehensive Program Review

3. USE OF ASSESSMENT RESULTS FOR PROGRAM IMPROVEMENT

What improvements have occurred since the last Program Review or assessment?

The minimum passing grade for major career courses was increased from 75=C to a 78=C. Starting Fall 2014, an increase in minimum passing grade will be implemented to a 80=B, 79 or below D (unacceptable)-student must repeat the course. With the increase from 75 to 78 as the minimum passing grade, there has been evidence of an increase in the passing rate and score on the national registry (ASCP) certification. Therefore better students are completing the program. In addition, the MLT program implemented the requirement that all students must submit a background check and drug screen as of fall semester 2013.

4. REVIEW OF CURRICULUM

What changes or revisions have been made to the Program, its curriculum, or its Student Learning Outcomes since the last Program Review or assessment?

Upon suggestion from the MLT Advisory Board and observation of students, the minimum passing grade for major career courses was increased from 75=C to a 78=C. Starting Fall 2014, an increase in minimum passing grade will be implemented to a 80=B, 79 or below D(unacceptable)-student must repeat the course. Work ethic/Effective domain implemented to insure students are better prepared for employment and have better employable skills pertaining to work ethics, which is also required by the program accreditation agency National Accreditation Agency of Clinical Laboratory Science (NAACLS). Starting Fall 2014 cohort student population will be implemented for students starting and completing the MLT program. As of Fall 2014, courses will incorporate an Effective Domain/Work ethics evaluation form to address areas of needed improvement in the course and or laboratory skills. Cohort classes will begin Fall 2014 to increase graduation rates.

5. PROGRAM STRENGTHS AND WEAKNESSES

Strengths:

A strength of the MLT program is prior to Fall 2014, students could enter the MLT program any semester. Starting Fall 2014, cohort will be added and students will start once a year. The cohort will increase the number of students graduating at one time.

High pass rates, high employment rates, high satisfaction rates, NAACLS accreditation, all students graduating taking and passing the ASCP certification registry with a pass rate above the national average. Dalton State College MLT program is the only program in the North Georgia area and we server the tri-state area of Tennessee, Georgia and Alabama.

Weaknesses and Concerns:

Weakness that have been identified with the changing to a cohort student population, some students are not able to attend college on a full-time bases due to employment and family obligations, the program may lose students that potentially could be successful in the MLT clinical field. Another weakness identified is the lack of supplies (consumables) and instruments to demonstrate laboratory exercise and allow students to observe and work on instruments that they will see once they enter into the clinical field as students and eventually as employees. With the increase in the number of students with the cohort population, the need for supplies and instruments will only be greater.. The program just does not have enough for each student to perform or practice skills that are needed to be more successful in the area of MLT.

Dalton State College
Comprehensive Program Review

6. RECOMMENDATIONS FOR FOLLOW-UP AND/OR ACTION PLANS (if needed)

Issues/Concerns:

A concern for the MLT program is the need for supplies (consumables) and updated instrumentation. The increase in the number of students (cohort) entering the program will increase with the need of more supplies and instrumentation.

There has been an increase in the number of students entering the MLT program that already have B.S. degrees in Biology, Chemistry, and Microbiology due to the inability of B.S. degree graduates to obtain jobs. Due to this increase of such students entering the program, our program is benefitting by having better students entering and graduating from the MLT program. Job security is good at this time and is predicted to only increase over time, especially for those individuals that have B.S. degrees.

Specific Action(s):

Request that the program budget be supported by the college.

Expected Outcomes:

Budget support for the supplies and equipment requested

Time-frame:

5 years

Person(s) Responsible:

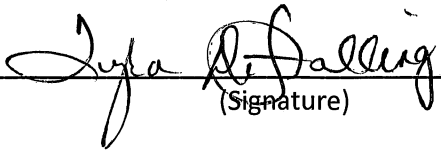
The college itself and the University system.

Resources Needed:

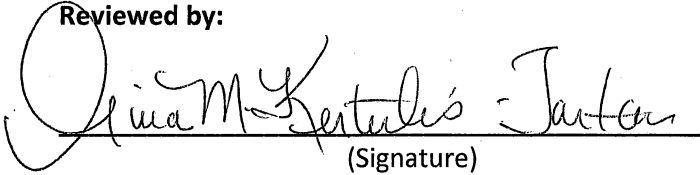
Budget support for the program for consumable supplies and updated equipment and instrumentation.

Dalton State College
Comprehensive Program Review

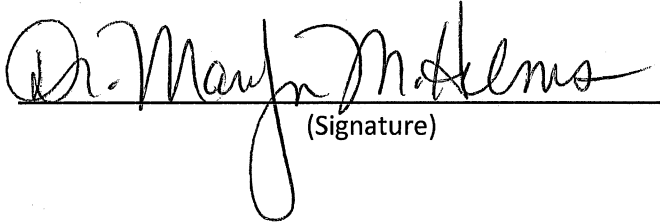
Prepared by:

 (Signature) Date 9/3/14

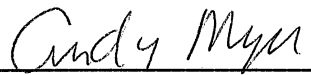
Reviewed by:

 (Signature) Date 12/18/2014

Reviewed by Chair of Program Review Subcommittee:

 (Signature) Date 1/5/2015

Reviewed/Approved by Vice President for Academic Affairs:

 (Signature) Date 1/12/2015