

AAS.MLT	Medical Laboratory Technology			
COURSE	Course SLOs	Program Goal (PSLO)	Didactic or Lab/Clinical	Sem./Yr. in Assessment Cycle
MLT 102 Medical Lab Fundamentals (2-3-3)	1. Define, describe, and evaluate the basic principles of hematology as it relates to red blood cell development and maturation.	1, 4	D	Fall 2016
MLT 102 Medical Lab Fundamentals (2-3-3)	2. Define, describe, and evaluate red blood cell normality and disease states and associate correct laboratory values to the condition.	1. 4	D/L	Fall 2016
MLT 102 Medical Lab Fundamentals (2-3-3)	3. List the requirements mandated by the occupational exposure to bloodborne pathogens, hazard communication and other safety protocols applicable to the hematology laboratory.	3	L	Fall 2017
MLT 102 Medical Lab Fundamentals (2-3-3)	4. Tabulate correct laboratory values using appropriate formula.	1	L	Fall 2017
MLT 102 Medical Lab Fundamentals (2-3-3)	5. Explain the function of the parts of the microscope and operate according to proper microscope procedures.	1	L	Fall 2018
MLT 102 Medical Lab Fundamentals (2-3-3)	6. Describe the requirements for specimen collection, handling, storage and preparation for the various samples in the hematology laboratory.	1	L	Fall 2018
MLT 102 Medical Lab Fundamentals (2-3-3)				
MLT 102 Medical Lab Fundamentals (2-3-3)	7. Summarize personal responsibility for professional decisions and the impact of those decisions in the quality of practice.	2	D/L	Fall 2018
MLT 115 Immunology (2-3-3)	1. Summarize the requirements mandated by the occupational exposure to bloodborne pathogens, hazard communication and other safety protocols applicable to the immunology laboratory.	3	L	Summer 2017
MLT 115 Immunology (2-3-3)	2. Correlate laboratory findings to common disease processes in immunology.	1,4	D	Summer 2017
MLT 115 Immunology (2-3-3)	3. Discuss the role of acute-phase reactants in the immune response.	1,4	D	Summer 2017
MLT 115 Immunology (2-3-3)	4. Differentiate between the classical and the alternate pathways of the complement system.	1, 4	D	Fall 2017
MLT 115 Immunology (2-3-3)	5. Describe the key immunologic reactant involved in immediate hypersensitivity.	1,4	D	Fall 2017
MLT 115 Immunology (2-3-3)	6. Distinguish organ-specific and systemic autoimmune diseases, giving an example of each.	1,4	D	Fall 2018
MLT 115 Immunology (2-3-3)	7. Discuss how laboratory tests can be used to diagnose and monitor the different types of immunodeficiency syndromes.	1,4	D/L	Fall 2018
MLT 230 Advanced Clinical Chemistry (3-3-4)	1. Identify the requirements mandated by the Occupational Exposure to Bloodborne Pathogens, Hazard Communication and other safety protocols applicable to the chemistry laboratory.	3	L	Spring 2017
MLT 230 Advanced Clinical Chemistry (3-3-4)	2. Describe specific biochemical markers of disease, including carbohydrates, lipids, proteins, enzymes and hormones.	1,4	D	Spring 2017
MLT 230 Advanced Clinical Chemistry (3-3-4)	3. Apply standards for specimen collection, specimen integrity in the pre-analytical, analytical and post-analytical delivery of patient care in Chemistry.	1,4	D/L	Fall 2017
MLT 230 Advanced Clinical Chemistry (3-3-4)	4. Outline the components that make up a valid quality assurance program in Clinical Chemistry.	1,4	L	Fall 2017

MLT 230 Advanced Clinical Chemistry (3-3-4)	5. Correlate laboratory findings to common disease processes in clinical chemistry.	1,4	D	Fall 2018
MLT 230 Advanced Clinical Chemistry (3-3-4)	6. Explain the principles of chemistry instrumentation including spectrophotometry, potentiometry, amperometry, electrophoresis, nephelometry, turbidimetry, fluorometry, chemiluminescence and, Electrochemistry, osmometry, chromatography, and immunoassays.	1,4	D/L	Fall 2018
MLT 104 Basic Medical Microbiology (1-3-2)	1. Identify the requirements mandated by the Occupational Exposure to Bloodborne Pathogens, Hazard Communication and other safety protocols applicable to the microbiology laboratory.	3	L	Spring 2017
MLT 104 Basic Medical Microbiology (1-3-2)	2. Interpret biochemical reactions used in the identification of microorganisms recovered from clinical specimens.	1, 4	D/L	Spring 2017
MLT 104 Basic Medical Microbiology (1-3-2)	3. Explain the goal of antibiotic susceptibility testing.	1, 4	D/L	Spring 2018
MLT 104 Basic Medical Microbiology (1-3-2)	4. Provide examples of general purpose, selective, differential, enrichment and transport culture media.	1,4	L	Spring 2018
MLT 104 Basic Medical Microbiology (1-3-2)	5. Select the appropriate primary media based on the specimen source.	1,4	L	Spring 2018
MLT 104 Basic Medical Microbiology (1-3-2)	6. Determine the appropriate incubation temperature, incubation period, and atmospheric requirement for isolating fungi on different fungal media.	1,4	D/L	Spring 2018
MLT 104 Basic Medical Microbiology (1-3-2)	7. Identify medically significant parasites based on modes of transmission, cystocyte or trophocyte.	1,4	D/L	Spring 2017
MLT 210 Advanced Hematology (3-3-4)	1. Define, describe, and evaluate the advanced principles of hematology as it relates to white blood cells and platelets development and maturation.	1, 4	D/L	Spring 2017
MLT 210 Advanced Hematology (3-3-4)	2. Compare and Contrast the requirements mandated by the Occupational Exposure to Bloodborne Pathogens, Hazard Communication and other safety protocols applicable to the hematology laboratory.	3	L	Spring 2017
MLT 210 Advanced Hematology (3-3-4)	3. Interpret laboratory results for hematology testing and classify them as normal or abnormal.	1,4	D/L	Spring 2017
MLT 210 Advanced Hematology (3-3-4)	4. Recognize neutrophilia from hematological data and name the common disorders associated with neutrophilia.	1,4	D/L	Spring 2017
MLT 210 Advanced Hematology (3-3-4)	5. Differentiate the common conditions associated with abnormal eosinophil, basophil, and monocyte counts.	1,4	D/L	Spring 2018
MLT 210 Advanced Hematology (3-3-4)	6. Compare and contrast the laboratory findings of the acute and chronic leukemias and myeloid and lymphoid leukemias.	1,4	D/L	Spring 2018
MLT 210 Advanced Hematology (3-3-4)	7. Identify the major lineages involved with various myeloproliferative disorders.	1,4	D	Spring 2018
MLT 210 Advanced Hematology (3-3-4)	8. Compare and contrast the primary and secondary disorders of hemostasis and the laboratory tests used to identify them.	1,4	D	Spring 2018
MLT 120 Immunohematology (3-3-4)	1. Select prepare, perform, correlate, and evaluate phenotypic characteristics for the identification of red blood cell antigens and antibodies.	1,4	D/L	Fall 2017

MLT 120 Immunoematology (3-3-4)	2. Correlate laboratory findings to common disease processes in immunoematology.	1,4	D	Fall 2017
MLT 120 Immunoematology (3-3-4)	3. Compare and contrast the blood group system with regard to blood group antigens and their inheritance.	1,4	D	Fall 2017
MLT 120 Immunoematology (3-3-4)	4. Apply the concepts of ABO compatibility in the selection of blood products for recipients.	1,4	D/L	Spring 2018
MLT 120 Immunoematology (3-3-4)	5. Outline the biochemistry of the Rh blood group system.	1,4	D	Spring 2018
MLT 120 Immunoematology (3-3-4)	6. Describe characteristics of the Rh blood system antibodies and their clinical significance with regard to transfusion and hemolytic disease of the newborn.	1,4	D	Spring 2018
MLT 120 Immunoematology (3-3-4)	7. Analyze the phase of reactions to determine the potential clinical significance of an antibody.	1,4	D/L	Spring 2019
MLT 120 Immunoematology (3-3-4)	8. Compare and contrast methods used to identify single and multiple antibodies in a patient sample.	1,4	L	Spring 2019
MLT 120 Immunoematology (3-3-4)	9. Outline the AABB's Standards for Blood Banks and Transfusion Services as related to compatibility testing.	1,4	L	Spring 2019
MLT 105 Medical Microbiology (3-3-4)	1. Differentiate the requirements mandated by the Occupational Exposure to Bloodborne Pathogens, Hazard Communication and other safety protocols applicable to the microbiology laboratory.	2	L	Fall 2017
MLT 105 Medical Microbiology (3-3-4)	2. Select prepare, perform, correlate and evaluate phenotypic characteristics for the identification of microorganisms.	1,4	D/L	Fall 2016
MLT 105 Medical Microbiology (3-3-4)	3. Evaluate standards for specimen collection, specimen integrity in the pre-analytical, analytical and post-analytical delivery of patient care in microbiology.	1,4	L	Fall 2017
MLT 105 Medical Microbiology (3-3-4)	4. Correlate laboratory findings to common disease processes in microbiology.	1,4	D	Fall 2016
MLT 105 Medical Microbiology (3-3-4)	5. Compare and contrast the general characteristics and the antigenic properties of gram negative bacteria.	1,4	D/L	Fall 2017
MLT 105 Medical Microbiology (3-3-4)	6. Summarize treatment strategies, expected antibiotic susceptibility results, and emerging resistance for gram negative bacteria.	1,4	L	Summer 2018
MLT 105 Medical Microbiology (3-3-4)	7. Correlate patient history, body site or specimen type, colonial morphology, gram stain results, identification results in order to identify the causative agent.			Summer 2018
MLT 108 Urinalysis and Body Fluids (2-3-3)	1. Compare and contrast the requirements mandated by the Occupational Exposure to Blood-borne Pathogens, Hazard Communication and other safety protocols applicable to Urinalysis and Body Fluids.	2	L	Fall 2017/Summer 2019
MLT 108 Urinalysis and Body Fluids (2-3-3)	2. Differentiates foundational knowledge of theory and principles related to clinical urinalysis and body fluids to the laboratory setting.	1,4	D/L	Fall 2017
MLT 108 Urinalysis and Body Fluids (2-3-3)	3. Demonstrates standards for specimen collection, specimen integrity in the pre-analytical, analytical and post-analytical delivery of patient care in urinalysis and body fluids.	1,4	L	Summer 2018

MLT 108 Urinalysis and Body Fluids (2-3-3)	4. Correlates laboratory findings to common disease processes and results in Urinalysis and body fluids.	1,4		Summer 2018
MLT 108 Urinalysis and Body Fluids (2-3-3)	5. Evaluates conditions that affect procedures and results in urinalysis and body fluids and take appropriate actions when indicated.		D/L	Summer 2019
MLT 240 Integrated Lab Concepts (1-9-4)	1. Model and adhere to guidelines as they apply to safe laboratory practices throughout the entire testing process: pre-analytical, analytical and post-analytical phases.	3	C	Spring 2017
MLT 240 Integrated Lab Concepts (1-9-4)	2. Verify errors and integrate and interpret analytical data to establish a course of action to solve problems.	1,4	C	Spring 2017
MLT 240 Integrated Lab Concepts (1-9-4)	3. Collaborate with the patient and other health care professionals in providing quality patient care.	1,4	C	Spring 2018
MLT 240 Integrated Lab Concepts (1-9-4)	4. Communicate effectively with diverse individuals and groups, serving all persons without discrimination by acknowledging and appreciating diversity.	2	C	Spring 2018
MLT 240 Integrated Lab Concepts (1-9-4)	5. Evaluates abnormal results, verifying quality control procedures, and developing solutions to problems concerning the generation of laboratory data;	1,4	C	Fall 2018
MLT 240 Integrated Lab Concepts (1-9-4)	6. Manages and differentiates foundational knowledge of theory and principles related to laboratory medicine.	1,4	C	Fall 2018
MLT 241 Medical Lab Transition (3-0-3)	1. Manages and differentiates foundational knowledge of theory and principles related to laboratory medicine.	1,4	D	Spring 2017 and 2018
MLT 241 Medical Lab Transition (3-0-3)	2. Compose Standard operating procedure for a laboratory procedure.	1,4	D	Spring 2017 and 2018
MLT 241 Medical Lab Transition (3-0-3)	3. Formulate the relationships of basic physiology to disease processes to normal and abnormal laboratory result.	1,4	D	Fall 2018
MLT 241 Medical Lab Transition (3-0-3)	4. Critique the health care delivery system as it applies to laboratory medicine.	1,4	D	Fall 2018
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	1. Model and adhere to guidelines as they apply to safe laboratory practices throughout the entire testing process: pre-analytical, analytical and post-analytical phases.	3	C	Spring 2017
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	2. Manage and apply theoretical knowledge critical to analytical procedures.	1,4	C	Spring 2017
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	3. Verify errors and integrate and interpret analytical data to establish a course of action to solve problems.	1, 4	C	Spring 2018
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	4. Collaborate with the patient and other health care professionals in providing quality patient care.	1,4	C	Spring 2018
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	5. Communicate effectively with diverse individuals and groups, serving all persons without discrimination by acknowledging and appreciating diversity.	2	C	Fall 2018
MLT 242 Survey in Medical Laboratory Technology (0-15-5)	6. Evaluates abnormal results, verifying quality control procedures, and developing solutions to problems concerning the generation of laboratory data;	1,4	C	Fall 2018
MLT 251 Clinical Experience I (2-9-5)	1. Model and adhere to guidelines as they apply to safe laboratory practices throughout the entire testing process: pre-analytical, analytical and post-analytical phases.	3	C	Summer 2017 & 2018
MLT 251 Clinical Experience I (2-9-5)	2. Compare and Contrast collection equipment, various types of additives used, special precautions necessary and substances that can interfere in clinical analysis of blood constituents.	1,4	D	Summer 2017 & 2018

MLT 251 Clinical Experience I (2-9-5)	3. Formulate the relationships of basic physiology to disease processes to normal and abnormal laboratory result.	1,4	D	Spring 2019
MLT 251 Clinical Experience I (2-9-5)	4. Collaborate with the patient and other health care professionals in providing quality patient care.	2	C	Spring 2019
MLT 252 Clinical Experience II (2-9-5)	1. Compare and Contrast the accepted practices for infection control, isolation techniques as methods for disease prevention.	3	D	Summer 2017 & 2018
MLT 252 Clinical Experience II (2-9-5)	2. Formulate the relationships of basic physiology to disease processes to normal and abnormal laboratory result.	1,4	D/C	Summer 2017 & 2018
MLT 252 Clinical Experience II (2-9-5)	4. Manages and differentiates foundational knowledge of theory and principles related to laboratory medicine.	1,4	D/C	Spring 2019
MLT 252 Clinical Experience II (2-9-5)	5. Collaborate with the patient and other health care professionals in providing quality patient care.	2	C	Spring 2019

Florence-Darlington Technical College

MLT-Program

Assessment-Systematic Evaluation Plan

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome: #1

Graduates will integrate scientific reasoning and interpretation within clinical laboratory sciences body of knowledge.

Course Number	Course Student Learning Outcome	Assessment Method	Benchmark	Actual Level of Achievement	Action Plan	Time Interval
MLT 102	Define, describe, and evaluate the basic principles of hematology as it relates to red blood cell development, maturation, laboratory values, and morphology	Test 1	80%	80.7%	I recommend giving extensive practice to students who are struggling with the mathematical problems and provide additional out of class assignments for additional practice with these principles.	Fall 2017
		Practical 3 Morphology section	80%	90%		
MLT 102	Define, describe, and evaluate red blood cell normality and disease states and associate correct laboratory values to the condition.	Test 2	80%	82.6%	Provide additional out of class assignments to help reinforce these concepts	Fall 2017
		Test 3	80%	81.5%		
		Test 4	80%	80%		
		Final exam	80%	84%		
MLT 105	MLT Students will select prepare, perform,	Biochemical Exam Module I	77% or higher	Exam cohort Average = 83.3%	Scheduling of formative measures were not	Fall 2017- Foundational skills will

	correlate and evaluate phenotypic characteristics for the identification of microorganisms.	Entire exam is content specific			timely with biochemical exam. Laboratory modules needs to be adjusted and lesson plans revised.	continue to monitor.

Florence-Darlington Technical College

MLT- Program

Assessment-Systematic Evaluation Plan

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome: #4

Graduates will correlate the relationships of basic physiology to disease processes to normal and abnormal laboratory results.

Course Number	Course Student Learning Outcome	Assessment Method	Benchmark	Actual Level of Achievement	Action Plan	Time Interval
MLT 102	Define, describe, and evaluate red blood cell normality and disease states and associate correct laboratory values to the condition.	Test 2	80%	82.6%	Provide additional out of class assignments to help reinforce these concepts	Fall 2017
		Test 3	80%	81.5%		
		Test 4	80%	80%		
		Final exam	80%	84%		
MLT 105	The student will correlate microbiology results to clinically significant infections caused by Neisseria and Haemophilus species.	Embedded Test Questions 2,3,5,6,7,11,12,14 All Essay type questions N = 8	77% or higher	77%	Provide practice with low stakes D2L drop box assignments. Make short answer and Essay questions part of every module exam. Begin written communication skills in MLT 104 (basic Microbiology) in spring 2017.	Course taught annually . Will repeat CSLO in fall 2017.

Florence-Darlington Technical College

MLT- Program

Assessment-Systematic Evaluation Plan

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome: #5

Graduates will conduct all scientific investigative work with care and precision and demonstrate a commitment to generally laboratory safety practices.

Course Number	Course Student Learning Outcome	Assessment Method	Benchmark	Actual Level of Achievement	Action Plan	Time Interval
MLT 120	Define, describe, and implement safe laboratory practices in all situations as they relate to Immunohematology.	Laboratory Practicals	80%	100%	Set up mock safety challenges to expose the student to new situations that will test their knowledge of all safety practices	Fall 2017
MLT 108	Define, describe, and implement safe laboratory practices in all situations as they relate to Urinalysis.	Laboratory Practicals	80%	100%	Set up mock safety challenges to expose the student to new situations that will test their knowledge of all safety practices	Fall 2017

Florence-Darlington Technical College

MLT- Program

Assessment-Systematic Evaluation Plan

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome: #6

Graduates will be able to follow procedural guidelines in performance of laboratory analysis including quality control, microcomputer applications, instrumentation and trouble shooting.

Course Number	Course Student Learning Outcome	Assessment Method	Benchmark	Actual Level of Achievement	Action Plan	Time Interval
MLT 120	Define, describe, and implement correct usage of laboratory equipment as it pertains to laboratory testing	Laboratory Practicals	80%	100%	Make the students solve problems associated with equipment in a preset environment to increase the ability to think on the fly when it comes to solving technological issues.	Fall 2017
MLT 108	Define, describe, and implement correct usage of laboratory equipment as it pertains to laboratory testing.	Laboratory Practicals	80%	All students meet the benchmark of a laboratory average above 80%	Make the students solve problems associated with equipment in a preset environment to increase the ability to think on the fly when it comes to solving technological issues.	Fall 2017

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 102

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will integrate scientific reasoning and interpretation within clinical laboratory sciences body of knowledge.

Course Student Learning Outcome:

Define, describe, and evaluate the basic principles of hematology as it relates to red blood cell development and maturation.

Analysis of Results:

Strength in student performances:

The biggest strength in the knowledge of the students was in the area of morphology. Morphology is the size shape and appearance of all red blood cells in a patient. Of all morphology questions ask students answered over 90% correctly.

Weaknesses in student performances:

The major weakness is in the manual calculation of red blood cell indices. These questions were missed at a very high rate. This could have been attributed to a mathematical error or by a lapse in remembering the formulas needed to give a correct calculation.

Recommended Action(s):

I recommend giving extensive practice to students who are struggling with the mathematical problems and provide additional out of class assignments for additional practice with these principles.

When Action will be implemented:

Fall 2017 during the next time the course is offered.

Data Comparison:

	2016 Fall-Startup	2017 Fall	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Test 1	Benchmark of 80% met (80.7 average on test)			
Practical 3	Benchmark of 80% (90% was achieved)			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 102

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will correlate the relationships of basic physiology to disease processes to normal and abnormal laboratory results.

Graduates will integrate scientific reasoning and interpretation within clinical laboratory sciences body of knowledge.

Course Student Learning Outcome:

Define, describe, and evaluate red blood cell normality and disease states and associate correct laboratory values to the condition.

Analysis of Results:

Strength in student performances:

Showed strong performance in the area of microcytic anemias. This was the first group of diseases we covered and showed an 82.6% success rate of test questions concerning this concept.

Weaknesses in student performances:

The major weakness was seen in hemoglobinopathies and thalassemias. This was the lowest metric seen with a success rate of only 80%.

Recommended Action(s):

Provide more out of class assignments to improve retention of disease states and correlation to the laboratory results. Also provide case studies to give the students more in-depth looks into laboratory data.

When Action will be implemented: Fall 2017

Data Comparison:

	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Test 2	Benchmark of 80% met (average score of 82.6%)			
Test 3	Benchmark of 80% met. (Average score 81.5%)			
Test 4	Benchmark of 80% met (average score of 80%)			
Final Exam	Benchmark of 80% met (average score of 84%)			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 105 Medical Microbiology

[HSC]

Faculty: Dawn Nelson

Semester(s) Reported:

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will integrate scientific reasoning and interpretation within clinical laboratory sciences body of knowledge. The body of knowledge encompasses the collection, processing and analysis of biological specimens.

Course Student Learning Outcome:

MLT Students will select prepare, perform, correlate and evaluate phenotypic characteristics for the identification of microorganisms.

Analysis of Results:

Strength in student performances:

The cohort average was 83.2 and there was only one failure with a grade of 74.

Weaknesses in student performances:

This was a multiple choice and matching test—questions are Level 1 and Level 2 type questions. When a comparison is made with fall 2015 cohort who was given the same test—the 2016 cohort score was lower. Fall 2015 cohort scored 90.3% and Fall 2016 cohort scored 83.2%. The biochemical exam content is foundational and applied across the curriculum and in particular the next module exam on Enterobacteriaceae. This cohort was not as successful on Module II exam (78.4%) where they had to apply and interpret the knowledge gained from the Biochemical exam to identify the required microorganisms.

Recommended Action(s):

Timing of formative and summative assessments need to be adjusted and lesson plans revised. D2L practice quizzes will be developed and will be part of the summative assessment measures, but not weighted as high. Sequencing of laboratory hands on experience did not correlate as well as it should have with the biochemical exam. Biochemical questions will be a cumulative component of all module exams. The final has always been a cumulative final.

When Action will be implemented:

Fall 2017- the next time MLT 105 will be taught.

Data Comparison:

MLT 105	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Biochemical Exam	83.2%			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

To be determined in Fall of 2017. Course taught annually.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 105 Medical Microbiology

[HSC]

Faculty: Dawn Nelson

Semester(s) Reported:

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will correlate the relationships of basic physiology to disease processes to normal and abnormal laboratory results.

Course Student Learning Outcome:

The student will correlate microbiology results to clinically significant infections caused by Neisseria and Haemophilus species.

Analysis of Results:

Strength in student performances:

The dedicated and engaged students did very well on this essay take home exam. This cohort could follow verbal and written instructions for the requirements for the exam.

Weaknesses in student performances:

Students that are not as engaged in module assignment missed critical details—2nd part of question, failed or skipped a question entirely; failed to follow written and verbal instructions. This is a disappointing behavior in senior MLT's who are one semester away from clinical experience.

Corrective Action:

Rubric will be devised for Essay exams. Students need more practice writing essay and short answer questions. Module exams in 2017 will include several short answer and essay type questions. Drop Box, low stake assignments will be developed for D2L to give student practice as preparation for module exam.

When Action will be implemented:

Fall 2017- the next time MLT 105 will be taught.

Data Comparison:

MLT 105	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark 77%	Benchmark	Benchmark	Benchmark
Embedded Questions N= 8	77%			

**Note Benchmark based on National Pass rate of boards.

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

To be determined in Fall of 2017. Course taught annually. First time monitor completed.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 120

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will conduct all scientific investigative work with care and precision and demonstrate a commitment to generally laboratory safety practices.

Course Student Learning Outcome:

Define, describe, and implement safe laboratory practices in all situations as they relate to Immunohematology.

Analysis of Results:

Strength in student performances:

The students have shown great strength in the normal safety procedures used during routine testing. All students have complied with all safe practices during all laboratory sessions and exams.

Weaknesses in student performances:

Students are not exposed to a vast majority of different situations. They show great strength in the routine safety but need to be exposed to different situations to learn how to react to new challenging environments.

Recommended Action(s):

Set up mock safety challenges to expose the student to new situations that will test their knowledge of all safety practices.

When Action will be implemented:

Fall 2017 when the course is offered again.

Data Comparison:

	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Online safety modules	Benchmark of 80% met. Students must retake online quizzes until 100% achieved.			
Lab practicals	Students have received all points available for safe practices during all laboratory examinations			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 120

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will be able to follow procedural guidelines in performance of laboratory analysis including quality control, microcomputer applications, instrumentation and trouble shooting.

Course Student Learning Outcome:

Define, describe, and implement correct usage of laboratory equipment as it pertains to laboratory testing

Analysis of Results:

Strength in student performances:

Students show great ability to use all instrumentation as it relates to immunohematology. They are able to properly set and take down all equipment needed during the course of routine testing.

Weaknesses in student performances:

Students show a weakness in troubleshooting situations where the equipment is not functioning properly. This causes a delay in results because they struggle to solve complex problems with equipment.

Recommended Action(s):

Make the students solve problems associated with equipment in a preset environment to increase the ability to think on the fly when it comes to solving technological issues.

When Action will be implemented:

Fall 2017

Data Comparison:

	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Laboratory practicals	Benchmark was met at 80%. Students have received all points allowed during practical examination for laboratory equipment.			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 108

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will conduct all scientific investigative work with care and precision and demonstrate a commitment to generally laboratory safety practices.

Course Student Learning Outcome:

Define, describe, and implement safe laboratory practices in all situations as they relate to urinalysis.

Analysis of Results:

Strength in student performances:

The students have shown great strength in the normal safety procedures used during routine testing. All students have complied with all safe practices during all laboratory sessions and exams.

Weaknesses in student performances:

Students are not exposed to a vast majority of different situations. They show great strength in the routine safety but need to be exposed to different situations to learn how to react to new challenging environments.

Recommended Action(s):

Set up mock safety challenges to expose the student to new situations that will test their knowledge of all safety practices.

When Action will be implemented:

Fall 2017 when the course is offered again.

Data Comparison:

	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Online safety modules	Benchmark of 80% met. Students must retake online quizzes until 100% achieved.			
Lab practicals	Students have received all points available for safe practices during all laboratory examinations			
**Note Benchmark based on National Pass rate of boards.				

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.

**Florence-Darlington Technical College
Assessment-Systematic Evaluation Plan Detailed Report**

Course Name: MLT 108

HSC

Faculty: Matthew Willis

Semester(s) Reported: Fall 2016

Course Category: Traditional Hybrid/Blended Online Web Facilitated Dual Enrollment DL

Program Student Learning Outcome:

Graduates will be able to follow procedural guidelines in performance of laboratory analysis including quality control, microcomputer applications, instrumentation and trouble shooting.

Course Student Learning Outcome:

Define, describe, and implement correct usage of laboratory equipment as it pertains to laboratory testing.

Analysis of Results:

Strength in student performances:

The students showed great ability to understand and operate laboratory equipment under normal circumstances. This was seen across all major practicals.

Weaknesses in student performances:

The major weakness identified was with trouble shooting. The students had some issues with the ability to solve equipment problems that presented themselves during a normal workload.

Recommended Action(s):

Set up equipment problems for the students to work on solving to get them more familiar with the instrument and more comfortable working on them.

When Action will be implemented:

Fall 2017

Data Comparison:

	2016 Fall- Startup	20__	20__	20__
Measurement Instrument	Benchmark	Benchmark	Benchmark	Benchmark
Laboratory practicals	All students showed an understanding of laboratory equipment during practicals			

**Note Benchmark based on National Pass rate of boards.

Impact of Changes Implemented As a Result of Previous Assessment Cycle:

First year of implementation of this SLO. Will report on the changes for this objective in Fall 2017.